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Erik Acharius and his influence on English lichenology

David J. Galloway

Botany series Vol 18 No 2 28 July 1988

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David J. Galloway

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Synopsis

The system of lichen taxonomy devised by the Swedish botanist Erik Acharius in his *Methodus qua omnes detectos lichenes* (1803) was introduced into English lichenology by Dawson Turner and James Edward Smith. At the instigation of Olof Swartz in Stockholm, both Smith and Turner corresponded with Acharius and sent him lichens from Britain, and from British explorations in the Pacific and North America. The influence of Acharius and Swartz on the development of lichenology in England in the early years of the 19th century is here traced through unpublished contemporary correspondence between Acharius and Swartz in Sweden, and Smith and Turner in England. The circumstances surrounding Acharius's important gift of lichens to the Linnean Society of London [now in the herbarium of the British Museum (Natural History)] are described, and a list of the lichens in BM-ACH appended.

Introduction

The pioneering advances in lichen taxonomy made by Erik Acharius (1757–1819) and recorded in his major published works, *Lichenographiae suecicae prodromus* (1798), *Methodus qua omnes detectos lichenes* (1803), *Lichenographia universalis* (1810), and *Synopsis methodica lichenum* (1814) were first adopted in England by Dawson Turner (1775–1858) and Sir James Edward Smith (1759–1828). Prior to Acharius's work, the majority of accounts dealing with British lichens (Hudson, 1762, 1778; Withering, 1776; Lightfoot, 1777; Dickson, 1785; Relhan, 1785; Smith, 1790–1814, 1791, 1794; Sibthorp, 1794) followed Linnaeus (1753) in their use of the collective genus *Lichen*. Laundon's excellent account of William Withering's lichens (Laundon, 1984) gives a good account of British lichenology at this period. In 1803 Acharius broke with Linnaean tradition, and in his *Methodus* he segregated the old genus *Lichen* into smaller independent genera, thereby laying the foundations of modern lichen taxonomy (Sernander, 1917; Vitikainen, 1976; Galloway, 1981). Lichen collections examined and annotated by Acharius in the preparation of his major taxonomic works thus have a fundamental importance in many modern taxonomic revisions. Typification and location of Acharian material is discussed by Tibell (1987: 257–259).

Acharius, scientifically and geographically isolated in the small Swedish town of Vadstena (Östergötland), relied mostly on his friend and colleague, Olof Swartz in Stockholm, for the provision of lichen specimens from foreign countries, and it was through Swartz that he first received English lichens from Smith, Turner, Borrer, Harriman, and Winch, as well as lichens

collected by Archibald Menzies during his two circumnavigations of 1786–89 and 1791–95 (Galloway & James, 1977; Galloway, 1986; Galloway & Groves, 1987). Olof Swartz (1760–1818), the leading Swedish botanist of his day, visited England in 1788 on his return from the West Indies (Hooker, 1840; Stearn, 1957; Stafleu, 1971) and, through his fellow countryman Jonas Dryander, he became well acquainted with the Banksian Herbarium and the circle of botanists who routinely used Sir Joseph Banks's great plant collections, scientific contacts which he maintained to his death in 1818. Swartz's correspondence with Menzies began in 1791 after his return to Stockholm (Galloway & James, 1977), and later there followed a protracted correspondence between Swartz, Smith, and Turner on lichenological matters. Subsequently, Swartz encouraged a lichenological correspondence between Acharius, Smith, and Turner, culminating in the election of Acharius to Foreign Membership of the Linnean Society of London and his gift to that Society of a named set of lichens [now in the British Museum (Natural History)] illustrating his taxonomic system first expounded in the *Methodus* and expanded in *Lichenographia universalis*. In the present paper, unpublished correspondence between Smith, Turner, and Swartz, and between Acharius, Smith, and Turner, is examined in an attempt to illustrate the impact of Acharius's taxonomic theories on the development of English lichenology in the first decade of the 19th century. In addition, the circumstances surrounding the gift of lichens that Acharius made to the Linnean Society are described, also from contemporary correspondence.

Notes on sources

The Acharius correspondence is held in the University Library, Uppsala, Sweden, and contains three letters from J. E. Smith (G 5a: 77–79) written between 1801 and 1806, and three letters from Dawson Turner (G 5a: 84–86) written in 1806. The Swartz correspondence is held in part in the Gustaf von Brinkmann Collection, Trolle Ljungby Castle, Bäckaskog, Sweden (copies held in the library of the Royal Swedish Academy of Sciences, Stockholm), and in the Library of the Royal Academy of Sciences, Stockholm, Sweden. In the von Brinkmann collection there are three letters from J. E. Smith (1800–1813), and in the main Swartz collection in the library of the Royal Swedish Academy of Sciences there are nine letters from J. E. Smith (1791–1809), and 18 letters from Dawson Turner (1801–1816). The correspondence of Sir James Edward Smith is held in the Archives of the Linnean Society of London (Dawson, 1934), and contains eight letters from Acharius (1799–1813), and 10 from Swartz (1795–1813). The correspondence of Dawson Turner is held in the library of Trinity College, Cambridge (Dawson, 1961), and contains five letters from Acharius (1804–1813), and 21 letters from Swartz (1802–1818).

In the extracts of letters used in this account, spelling is kept as in the original documents. In certain cases an ordering into paragraphs has been made for ease of reading. Editorial comments within quotes from letters are placed in square brackets.

Lichenological links between England and Sweden 1791–1804

James Edward Smith, purchaser of the library and collections of Carl von Linné in 1784 and founder of the Linnean Society of London in 1788 (Stearn, 1988; Walker, 1988), first published on lichens in 1791 (Smith, 1791*a*). As a student in Edinburgh in 1784 he had already lectured on newly discovered lichens in Scotland that were not recorded in Lightfoot's *Flora scotica* (1777), demonstrating a considerable interest in, and knowledge of this plant group (Galloway, 1979). His correspondence with Swartz began in 1791 in the following manner:

> 'I am happy that my office in the Linnean Society affords me this opportunity of assuring you of my respect and of expressing at the same time my regret that I was absent from England when you were here. It would have given me the greatest pleasure to have conversed with you on our favourite subject of botany, and to have rendered you any service in my power, especially to have submitted to your inspection those treasures of science which good fortune has thrown in my way, and which I wish to render as useful as I can. My good friend Mr. Afzelius (now in Scotland) has told me that you had expressed a desire of corresponding with me. Nothing will give me more pleasure, as it is the only amends you can make me for not having seen you. I shall be very glad if I may have any

duplicate specimens that may be acceptable to you, and you can doubtless enrich my herbarium very much in return!

Permit me however to make one observation, which my natural frankness and love of truth will not allow me to conceal. I could have wished [you] had not said in the preface [to your] Prodromus that you had compared your specimen with the Linnean Herbarium, but rather that you had compared them with those of Sir J. Banks *which had been compared* with those of Linnaeus. This is a very different thing. As it stands now the world may justly wonder that you have not returned *me* any thanks, which (allow me to say) I feel conscious I should, if in England, have acted so as to have deserved. The matter may easily be corrected when you publish anything else, and it is better it should be corrected by you than me.' (Smith, 1791*b*).

In a letter written on 21 May 1792 Smith added:

'I received your letter of 16 July last and, (some time ago) that of November 27. I beg your pardon for not answering them sooner, and now I can only give a hasty reply, having been ill, and obliged to go for some time into the country for air. I will not however omit this opportunity of saying I am perfectly satisfied with your explanation on the subject of my last letter, and if you explain the matter as you say, in your next publication it must be quite satisfactory to the public. I shall be happy to merit your future confidence and esteem as much as (I doubt not) you will mine. I would not have you rely too much on specimens named even by Linnaeus himself in his old age. I find he often made mistakes. I trust only to *original specimens*, which I know by numbers and marks to be what he had before him when he wrote the *Species Plantarum*. Young Linnaeus's authority is still worse, as he appears to have been oftener wrong than right in naming plants, even when he had the true specimens to compare with.' (Smith, 1792).

In May 1794 Smith sent Swartz copies of his papers published in the second volume of the Linnean Society's *Transactions* and some plants from New Holland (Australia) for Swartz's herbarium. Swartz reciprocated with specimens from his own collections, among them several lichens which drew from Smith the rejoinder:

'I am quite ashamed to find I have not written to you since May 11th 1794, but I have many good excuses to give, having last year had very bad health, and having more writing upon my hands than I could well accomplish, I delayed answering your last favour, dated September 10 1795, till I should receive the packet you mention which I now have. I hope also you will have some indulgence for me when I tell you that I am just now married . . . Thank you for the lichens. The *discolor* agrees perfectly with my *saturninus* (for I gave Dickson the name and description) except that mine is more *villose* underneath. Yet I think they are one species. Your *Lichen crassus* Huds., is right, and very near my *chrysoleucus*, yet the latter is more foliaceous, and the scutellae larger and yellower. I shall examine carefully if they be distinct or not.

L. hyperboreus I thought, at first sight, the *torrefactus* of Lightfoot, but it is very distinct, especially the under side. The beautiful *L. erosus* is also near *torrefactus*, but I think distinct. *L. pellitus* is certainly *polyrrhizos* of Lightfoot, and *velleus* of Hudson; Linnaeus confounded it with his *velleus* which it is not. *L. griseus* is exactly the same as my plant gathered at Ermenonville (see Tour Vol. 1. 104), which I *presume* to be Vaillant's t. 21.f.14; but upon the most careful reexamination, I fear it is not the real *deustus* of Herb. Linn., marked No. 970 of Fl. Suec. ad. 1. which is therefore an original specimen, and which is said to be so common in Uplandia. You I presume know this lichen. The Linnean specimen is in fructification. Can you send me more of it? What you have sent for *deustus may* be the same, but your specimens are larger and more dilated than the solitary one in H.L. The scutellae are similar.

What you have sent for *polyrrhizos* Dill., and the English writers (and which you say is sometimes coarsely hairy beneath) is not so, nor can I tell what it is. It is the *colour* of the true *vellus* H.L., and Dill. tab. 82.f.5, but that is *very* hairy beneath. Can it be that? *L. hirsutus* Act. Holm. is certainly Dill. fig. 117, as I have seen at Oxford, and I have it in H.L. marked *polyrrhizos*, but in Ehrhart's writing, consequently no *original* authority. Yet I know *nothing else* that can be *polyrrhizos* Linn. From what I have seen in Switzerland I suspect this and the true *velleus* may be varieties of each other. I will shew Dickson your *Lichen membranaceus* when I see him next and tell you what he says.

Dr. Acharius appears to be (as you say) a most accurate botanist. Your countrymen are (without any compliment) the most acute of all people. Your observations on my paper on Wulfen's lichens are, I dare say, very just. I shall profit of them when I have an opportunity . . . I cannot find the promised *Lichen Westringii* among those you favoured me with . . . You ask for *Lichen exasperatus* Lightf. What is it?' (Smith, 1796*a*).

The discussion between Smith and Swartz on the Swedish lichens sent to London continued six months later:

> 'I now sit down to answer your letter of June 6 . . . Never make any apology for enquiring or asking me for any thing in my power. I wish to be useful to those who really promote science, and shall always be happy to serve you. I send you such a morsel as I could take off from Linnaeus's original little specimens of *Bryum vividulum* – it is quite different from any of those enclosed in your letter . . . As to *Lichen polyrrhizos* of our English writers which is Dill. t.30.f.130, you may be positively assured it is *exactly* the same as *Lichen pellitus* of Acharius which you sent me. I have no English specimen at hand to spare, or I would send it to you, but you have no occasion for it. I have one specimen from Scotland in fructification, which is very much convoluted like a *Madrepora labarynthiformis* (I think it is called), as in the figure in your Acta. I am very sorry I cannot find a bit of *Lichen torrefactus* to send you now, but I think I have some among my Scotch plants somewhere – when I find it you shall have it. It seems to me much more foliaceous and complicated beneath than *L. hyperboreus* Acharii, which is quite simple . . . I shall be extremely obliged to you at any time for any new or rare Cryptogamia, especially such as are described in your Stockholm Transactions. I long to receive the continuation of that work . . . Your *Lichen erosus* is very distinct from Lightfoot's *torrefactus*. Whatever Schrader's may be . . .
>
> Our Linnean Society flourishes much, as you will see by the list enclosed . . . I am going to reside at Norwich where all my relations live, and where I hope to be more master of my time than I can be here. I can be in London at any time in 15 hours, and I shall spend some months there every winter. I shall also continue my lectures at Guy's Hospital . . . Please to observe my name is *James Edward*, it is printed by mistake *John* in the Stockholm Trans.
>
> I had called this New Holland plant *Acharia*, but finding Professor Thunberg has one of that name in his *Prodromus*, I have changed mine to *Westringia*; Mr. Westring seems by his paper highly deserving. Pray express the title of his dissertation properly in my paper – I did not know well how to do it. I am the author of Sowerby's *English Botany* entirely – and have put my name to the fourth volume – it sells very much . . . Adieu my good friend – let me hear from you soon . . . I am preparing a Florula of New South Wales.' (Smith, 1796*b*).

On 18 July 1799 Acharius first wrote (in Latin) to Smith offering him a copy of his *Lichenographiae suecicae prodromus* for the Linnean Society Library (Figs 1, 2). On 10 February 1800 Smith wrote to Swartz:

> 'I have not yet received a work of Mr. Acharius on Lichens which he sent long ago by Hamburg I believe . . . I have several fasciculi of Sowerby's Fungi to send you when the season of the year will admit. I have been of late a very negligent correspondent to you and many other friends, because I have worked so hard at my Flora Britannica, and have had too much writing on my hands besides other business. My flora is now printed as far as Monoecia (*Carex*) and I am busy writing the Cryptogamia. You perhaps have not heard of another much greater (though perhaps not more difficult) work I have lately undertaken, the *Flora Graeca*. All Dr. Sibthorp's collection of specimens and near 1000 very fine drawings are put into my hands by his executors and the University of Oxford. I am to make the descriptions, fix the names, and digest the information contained in his Journal. The work will consist of 10 folio volumes of 100 coloured plates each, in the style of Jacquin's *Flora Austriaca*, but much better done. There is also to be a *Prodromus* in 8vo. The drawings are so very fine we can hardly find artists to colour the plates well enough to be compared with them. I received very safe your letter of October 1798 and a valuable parcel of Cryptogamia, particularly useful to me just now . . .
>
> I could not have thought before I began, there had been so much to do in the Flora Britannica. . . . I wish my Fl. Brit. may not disappoint you. If I had none but such partial and intelligent friends as you to judge it, I should not be so afraid, because you would know the difficulties I had to surmount.' (Smith, 1800*a*).

Upon the arrival in Norwich of Acharius's work on Swedish lichens Smith wrote to Swartz:

> 'I shall be greatly obliged to you for specimens of your new discoveries – especially in the Cryptogamia. I long for *Lichen Dillenianus* of Acharius. Will you be so good as to inform Dr. Acharius that I have received his most excellent book, though a long while (almost a year I believe) after his letter, and having of late been much from home, I have had but little time to study his work. I therefore postpone writing to him till I can collect all the queries and remarks I have to offer, as well as make out a list of my desiderata. I shall then communicate to him in form the thanks of the

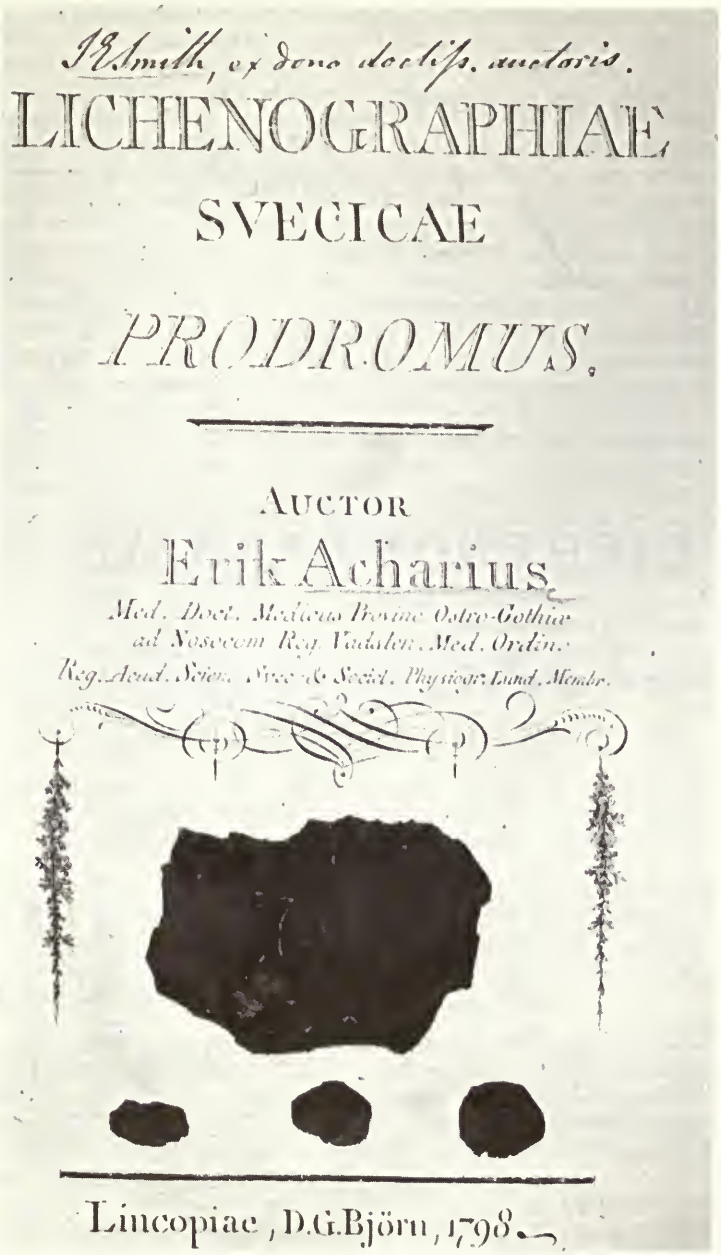


Fig. 1 Title page of *Lichenographiae suecicae prodromus* (Acharius, 1798). J. E. Smith's copy, Library, Linnean Society of London.

Linnean Society for the honour done them by the dedication of so valuable a work. In the meantime beg him to accept of my best thanks, and assurances of sincerest esteem . . . I shall take the liberty of having Dr. Acharius proposed as a foreign member of our Linnean Society. Perhaps Mr. Westring too would like to be a member – my compliments to him.' (Smith, 1800*b*).

In reply Swartz wrote to Smith:

'The honour you would confer upon Mr Acharius and Westring in proposing them as members of the Linnean Society, they certainly would esteem very highly; and I dare say you cannot propose worthier men. Both are, as you know, pupils of Linnaeus and of well know ability.' (Swartz, 1801*a*).

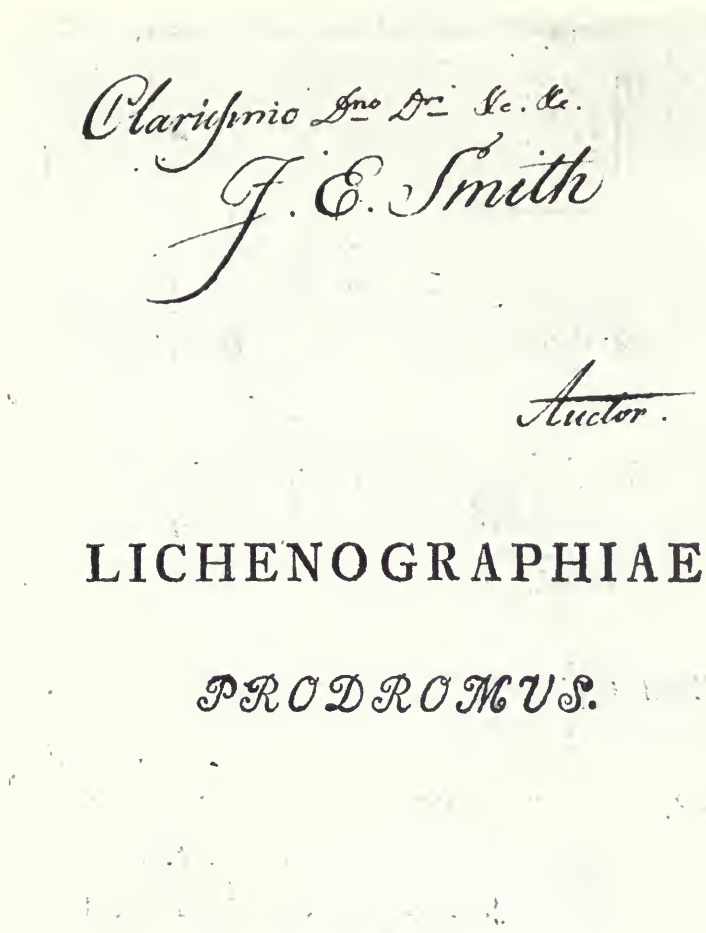


Fig. 2 Acharius's dedication to J. E. Smith on the fly leaf of *Lichenographiae* . . . Library, Linnean Society of London.

In 1800, Dawson Turner, who had become interested in lichens after reading Acharius's *Lichenographiae suecicae prodromus* sent a letter to Acharius through J. E. Smith, but because of political difficulties existing between Britain and Sweden at that time, normal correspondence between the two countries was not able to be resumed until one year later. Turner began his correspondence with Swartz:

'It is now almost a year since, attracted by Dr Acharius's valuable publication upon the lichens, I

took the liberty of addressing to him a letter, which I entrusted to our mutual friend, Dr Smith, and I am concerned to find that from the compleasant [sic] situation of public affairs between our two kingdoms, he was not able to forward it till a few weeks ago. I also consulted him upon the propriety of troubling you with a letter, and, emboldened by his assurance that you will not consider my so doing as a piece of impertinence, I venture to write to you for the purpose of proposing, if it be not disagreeable to you, occasionally to interchange our sentiments upon Botanical subjects, and supply each other with the vegetable productions of our separate countries. I am well aware that, in making such a proposition, I have very little indeed to offer compared with what I may hope to receive from your liberality; but, being urged by an unbounded zeal for the promotion of our favourite science, and being in correspondence as well with almost all the celebrated British Botanists, as with Dr Schreber, Dr Roth, Dr Schrader, and Dr Esper in Germany, I would fain flatter myself that, like the mouse with the lion in the fable, I may be able occasionally to render you some service.

My studies have of late been principally directed to the Musci and Algae, among the latter of which, especially the Fuci, Ulvae, and Confervae, my collection is very extensive, and I shall have infinite pleasure in supplying you with any that may be wanting to your herbarium.

Of lichens and mosses I can offer you almost all the British species, but I have hitherto had very little opportunity of acquiring any not natives of this Island, and shall be particularly thankful for whatever specimens you can spare of Swedish or American Lichens, or of the mosses described in your beautiful little publication . . . I shall now add no more, except that, if my proposal be not unpleasant to you, and if you will have the goodness to send me a parcel of any, not gathered in Britain, of submerged algae, Lichens, Jungermanniae, or Mosses (no matter how common, for all plants natives of distant countries have slight shades of difference from soil, climate etc) addressed to the care of our friends, Sir Joseph Banks, or Dr Smith, and will at the same time favour me with a letter *by post* containing a list of your desiderata, and mentioning how I can most effectually serve you, it will give me exceeding pleasure to take every opportunity in my power of having the respect I entertain for so deservedly eminent a naturalist, and the high esteem with which I now have the honour of subscribing myself.' (Turner, 1801).

In November 1801, Swartz sent notice to Smith:

'I intend with these lines to inform you that I have just sent of [sic] for England to the care of Sir Joseph Banks and Mr Dryander, two parcels containing the one some specimens of Lichens from Dr Acharius, to which I have put some few, that he could not afford.' (Swartz, 1801*b*).

In December of the same year Smith wrote (in Latin) to Acharius, sending a collection of lichens, and outlining his own manuscript diagnoses of those he considered new. Among these were five lichens collected by Archibald Menzies from New Year's Harbour, Staten Land, and from British Columbia in 1787 while he was surgeon on Captain Colnett's ship, the *Prince of Wales*. Smith described Menzies' newly discovered lichens thus:

'205 *Lichen intestinalis* MSS [= *Hypogymnia enteromorpha* (Ach.) Nyl.] membranaceus subimbricatus glaber albus lobatus obtusus ventricoso inflatus subtus ater scutellis badiis integerrimis. Ad Americae borealis oras occidentalis. *D. Archibaldus Menzies*

Lichen cincinnatus MSS [= *Menegazzia cincinnata* (Ach.) Bitter] membranaceus gyroso: subimbricatus glaber albus lobatus obtusus inflatus subtus ater scutellis badiis crenatis. Ad Fretum Magellanicum *D. Menzies*. A praecedente distinctissimus.

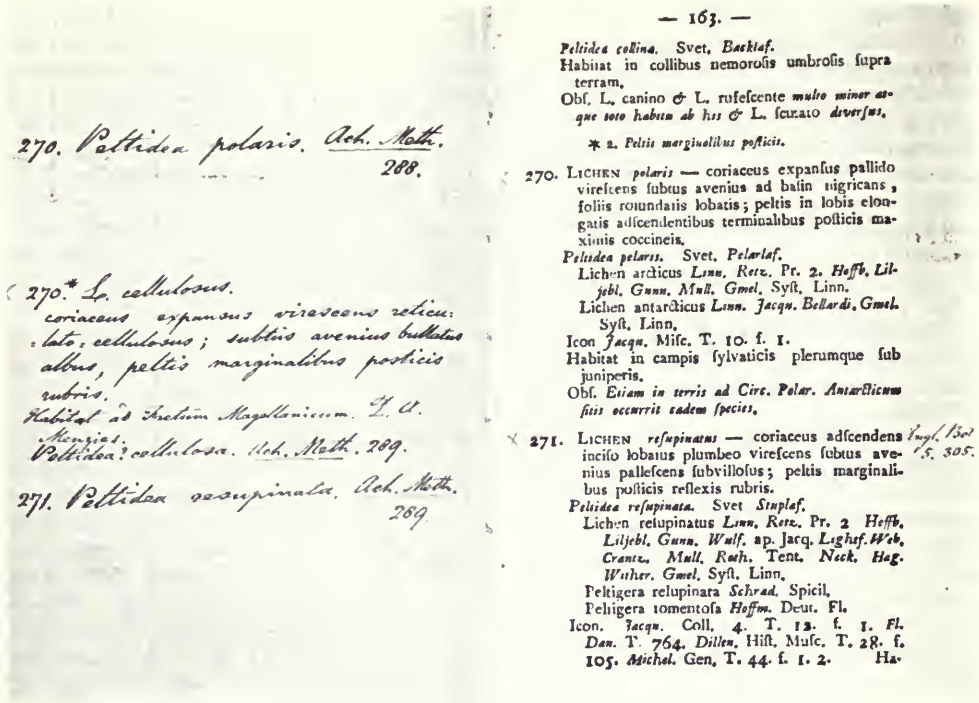
Lichen duplicatus MSS [= *Hypogymnia duplicata* (Ach.) Rassad.] membranaceus laxus glaber albus multifida: ramosus linearis inflatus subtus ater, scutellis (ignota). Ad oras occidentalis. Amer. borealis *D. menzies*.

253 *Lichen menziesii* MSS [= *Leptogium menziesii* (Ach.) Mont.] gelatinosus membranaceus fusco-virens subtus tomentoso-albus; foliolis rotundatis planis scutellis pedunculatis campanulatis rubris. Ad Fretum Magellanicum, *D. Menzies*.

270 *Lichen cellulosus* MSS [= *Nephroma cellulosum* (Ach.) Ach.] coriaceus expansus virescens reticulato: cellulosus, subtus avenius bullatus albus, peltis marginalibus posticis rubris. Ad Fretum Magellanicum. *D. Menzies* – parva species. [Fig. 3]

276 *Lichen obvolutus* MSS [= *Pseudocyphellaria obvoluta* (Ach.) Malme] subcoriaceus undique tomentosus cinereo-fuscus, foliis adscendentibus rotundatis emarginatis, scutellis submarginalibus concavis rufis. In ramis *Berberidis ilicifoliae*. Ad Fretum Magellanicum. *D. Menzies*.' (Smith, 1801) (Fig. 4).

These descriptions were later published almost without alteration by Acharius in his *Methodus*



270. Peltidea polaris. Ach. Meth. 288.

270.* L. cellulosus.
coriaceus expansus virescens reticulato-cellulosus; subtus avenius bullatus albus, peltis marginalibus posticis rubris.
Habitat ad Fretum Magellanicum. D. D. Menzies.
Peltidea? cellulosa. Ach. Meth. 269.

271. Peltidea resupinata. Ach. Meth. 289.

— 163. —

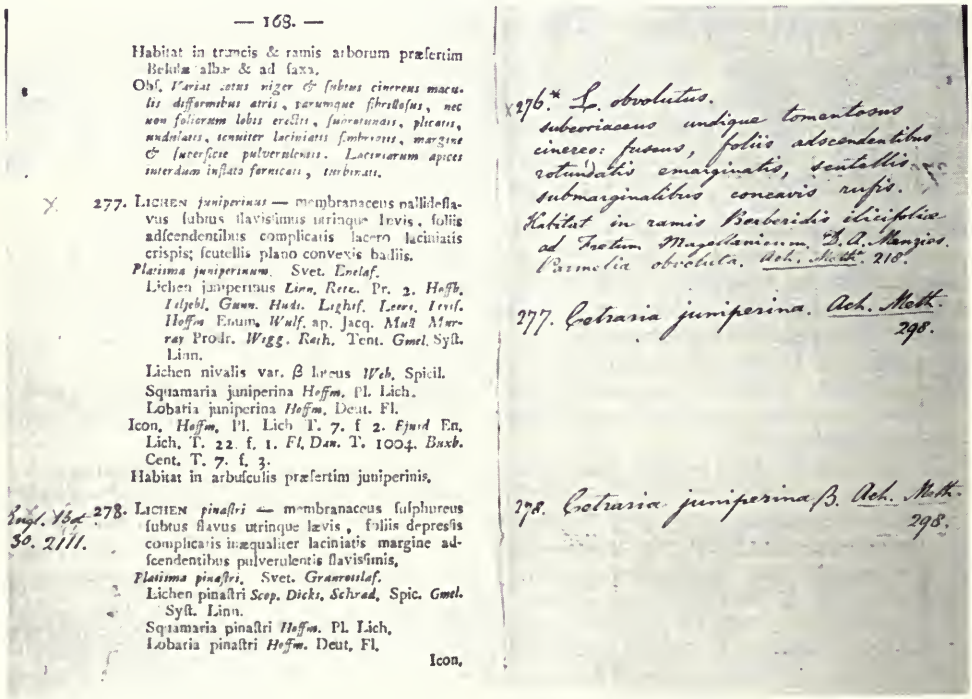
Peltidea collina. Svet. *Backlaf.*
Habitat in collibus nemorosis umbrosis supra terram.
Obs. L. canino & L. rufescente *multo minor atque toto habitu ab his & L. fcrrato diversus.*

* 2. *Peltis marginalibus posticis.*

270. LICHEN *polaris* — coriaceus expansus pallido virescens subtus avenius ad basin nigricans, foliis rotundatis lobatis; peltis in lobis elongatis adscendentibus terminalibus posticis maximis coccineis.
Peltidea polaris. Svet. *Polarlaf.*
Lichen arcticus *Linn. Retz.* Pr. 2. *Hoffm. Liljebl. Gunn. Mull. Gmel.* Syst. Linn.
Lichen antarcticus *Linn. Jacqu. Bellardi. Gmel.* Syst. Linn.
Icon *Jacqu.* Misc. T. 10. f. 1.
Habitat in campis sylvaticis plerumque sub juniperis.
Obs. *Etiam in terris ad Circ. Polar. Antarcticum sitis occurrit eadem species.*

271. LICHEN *resupinatus* — coriaceus adscendens inciso lobatus plumbeo virescens subtus avenius pallescens subvillosus; peltis marginalibus posticis reflexis rubris. *Engl. Bot. t. 305.*
Peltidea resupinata. Svet *Stuplaf.*
Lichen resupinatus *Linn. Retz.* Pr. 2 *Hoffm. Liljebl. Gunn. Wulf.* ap. Jacq. *Lightf. Web. Crantz. Mull. Roth.* Tent. *Neck. Hag. Wither. Gmel.* Syst. Linn.
Peltigera resupinata *Schrad.* Spicil.
Peltigera tomentosa *Hoffm.* Deut. Fl.
Icon. *Jacqu.* Coll. 4. T. 13. f. 1. *Fl. Dan.* T. 764. *Dillen.* Hist. Musc. T. 28. f. 105. *Michel.* Gen. T. 44. f. 1. 2. Ha-

Fig. 3 J. E. Smith's description of *Lichen cellulosus* in his annotated copy of *Lichenographiae* . . . Library, Linnean Society of London.



— 168. —

Habitat in truncis & ramis arborum præsertim Betulæ albæ & ad saxa.
Obs. *Variat totus niger & subtus cinereus maculis difformibus atris, earumque fibrillosus, nec non foliorum lobis erectis, subrotundis, plicatis, undulatis, tenuiter laciniatis fimbriatis, margine & superficie pulverulentis. Laciniarum apices interdum inflato fornicati, turbinati.*

277. LICHEN *juniperinus* — membranaceus pallidesflavus subtus flavissimus utrinque lævis, foliis adscendentibus complicatis lacero laciniatis crispis; scutellis plano convexis baliis.
Platisma juniperinum. Svet. *Enelaf.*
Lichen juniperinus *Linn. Retz.* Pr. 2. *Hoffm. Liljebl. Gunn. Huds. Lightf. Lenz. Trist. Hoffm* Enum. *Wulf.* ap. Jacq. *Mull Murray* Prodr. *Wigg. Roth.* Tent. *Gmel.* Syst. Linn.
Lichen nivalis var. β laxus *Web.* Spicil.
Squamaria juniperina *Hoffm.* Pl. Lich.
Lobaria juniperina *Hoffm.* Deut. Fl.
Icon. *Hoffm.* Pl. Lich. T. 7. f 2. *Fjacd* En. Lich. T. 22. f. 1. *Fl. Dan.* T. 1004. *Buxb.* Cent. T. 7. f. 3.
Habitat in arbusculis præsertim juniperinis.

278. LICHEN *pinastri* — membranaceus sulphureus subtus flavus utrinque lævis, foliis depressis complicatis inæqualiter laciniatis margine adscendentibus pulverulentis flavissimis. *Engl. Bot. 30. 2111.*
Platisma pinastri. Svet. *Granroslaf.*
Lichen pinastri *Scop. Dicks. Schrad.* Spic. *Gmel.* Syst. Linn.
Squamaria pinastri *Hoffm.* Pl. Lich.
Lobaria pinastri *Hoffm.* Deut. Fl.
Icon.

276.* L. obvolutus.
subcoriaceus undique tomentosus cinereo-fuscus, foliis adscendentibus rotundatis emarginatis, scutellis submarginalibus concavis rufis.
Habitat in ramis Berberidis dilicipliæ ad Fretum Magellanicum. D. D. Menzies.
Parmelia obvoluta. Ach. Meth. 218.

277. Cetraria juniperina. Ach. Meth. 298.

278. Cetraria juniperina β. Ach. Meth. 298.

Fig. 4 J. E. Smith's description of *Lichen obvolutus* in his annotated copy of *Lichenographiae* . . . Library, Linnean Society of London.

(1803), including Smith's incorrect designation of Staten Land as 'Ad Fretum Magellanicum', an error which has been a source of confusion to later authors attempting to typify Acharian taxa with Menzies' specimens (see Jørgensen, 1975; Galloway, 1986). After receiving his first parcel of lichens from Sweden, Smith wrote to Swartz:

> 'How can I sufficiently thank you, my dear friend, for your favours to me? This week Sir Joseph Banks has sent me your's and Dr. Acharius's most valuable parcels, and although I have as yet not had time to study a quarter of their contents, I will not wait one post day to thank you for them . . . My last letter to you was on the 16th of August last, in answer to yours of February 2, accompanying two fasciculi of Sowerby's Fungi . . . Also a parcel of Lichens for Dr. Acharius, upon which I anxiously wait for his opinion. The packet was entrusted to Dryander to forward to Sweden. I have never heard any thing of the letter or packet of Cryptogamia you sent me by 2 American gentlemen! So much the worse for me! . . .
>
> A word or two on Lichens. What you have now sent me as *Urceolaria gibbosa* I formerly had from you by the name of "*L. cinereus versus Linnaei*" and you desired me to observe the black margin of the crust, mentioned in Sp. Pl. Nevertheless, I presume the *cinereus* of Acharius, p. 32, is different from his *gibbosus*, and may be the same as his *multipunctatus*, which I have taken for the true *cinereus* in *Engl. Bot.* v. 12. t. 820. His true *L. cartilagineus* is quite new to me. Pray tell Dr. Acharius I received his parcel, and thank him for it with all my heart. I will, as the spring advances, send him a few things that I hope may be acceptable. I wrote him a letter lately full of differentiae specificae of new Lichens (as I supposed), I shall not write again till I have examined his specimens thoroughly. In the meantime I beg you to tell him I find his *lepadinus* is my *inclusus**, *Engl. Bot.* t. 678, as I guessed. The little morsel he sent marked "*L. pallescens* versus Linn." is precisely what I have found in Wales, and have sent him (No 7), and which I take from the figure and description in Jacq. Collectanea, to be *albo-flavescens* of Wulfen. What Acharius sends me as his own *pallescens*, I think a different species, and more akin (as he says) to *parellus* and *upsaliensis*. The true Linnean *L. calcareus* from the walls of Upsal., is very near (if not the same) to my *tessellatus Engl. Bot.* v. 8. t. 533. [Fig. 5] Mine only is rather larger in all its parts. But I shall give them a more careful examination hereafter.
>
> My *Lichen inquinans, Engl. Bot.* v. 12. t. 810. I find to be his *clavellus*, p. 83, but I doubt some of the synonyms, especially *Dill. t. 14. f. 3.* His *dispersus* is exactly the *crenulatus* of Dickson, which the latter has not well described in his Fasciculi: The 4th fasciculus of Dickson is just published. It contains many new things, but has some inaccuracies, as all such works must have. I am now busy in finally settling the Musci and Lichenes of *Flora Britannica*, and your specimens are doubly valuable to me . . . I will send you and Dr. Acharius something this spring.' (Smith, 1802).

Dawson Turner too had received an answer from Swartz and a share in the parcel of lichens posted to Banks. In reply he wrote:

> 'I received with particular pleasure, and felt myself much honored [sic] by your obliging letter, which, however, I deferred answering till the parcel you were so good as to destine for me arrived, and my patience, never very great, was well nigh quite exhausted, when the kindness of Sir Jos. Banks forwarded it to me a few days ago. You may judge of the eagerness with which I opened it, and I assure you that my expectations were not small, but they were far surpassed by the riches that I found, and I cannot sufficiently thank you for the immense addition that you have made to my herbarium . . .
>
> As for British Mosses, I believe I shall be able to send the greater part of your desiderata, but you, who have been in this country, know that these plants are almost exclusively in the hands of Mr Dickson, who dispenses them very sparingly, and gives, to use his own expression, specimens "only just good enough to swear by". As I live in the most level part of England where but few of them are found, this must be my apology, if I should be unable to furnish all you want, or if my specimens should be indifferent. In Lichens I trust I shall prove myself not an unworthy correspondent, and I must by the favour of you, as soon as you have leisure, to send me as many of your Swedish and Indian species, as you can conveniently spare from your more deserving friends.' (Turner, 1802*a*).

Shortly afterwards Turner sent Swartz a first parcel of English lichens noting:

> '. . . many of the inclosed Lichens are common, but will serve to ascertain what English authors have intended, and, if you do not object, I would propose to you to exchange every species of this

* see Bailey & James (1977).

— 60. —

nec elevatis in infamia depressis, immarginatis & per ætatem magis convexis, atris, plerumque margine albo a crusta provenente, quasi cinctis: ab hoc vero: scutellis demum majoribus, primum cæcis & pruinosis.

* 10. Scutellis atris.

125. LICHEN calcarius — crustaceus rimoso areolatus subpulverulentus albissimus: scutellis depressis minutis sparsis demum convexis totis atris.
Patellaria calcaria. Swet. Kalklaf.
Lichen calcareus Linnæi!
Habitat in saxis præcipue calcariis & muris antiquis.
Obs. Crusta per ætatem minus alba & fere sordida evenit.
Hic & L. confluens promiscue unus pro altero apud Auctores occurrit, unde synonyma valde ambigua. Genuinam tamen hanc esse Linnæi speciem varia testantur in herbariis quorundam exemplaria, manu Ejus propria signata. Vix specie differunt:
Verrucaria calcaria Hoffm. Deut. Fl. crusta effusa lactea, scutellis convexis atris a crusta marginatis: atque
Lichen cretaceus Ehrh. Beytr. crusta farinosa cretacea.

126. LICHEN confluens — crustaceus rimosus glauco cinerascens; scutellis marginatis demum convexis confluentibus totis atris.
Patellaria confluens. Swet. Graddlaf.
Lichen confluens Weberi. Swartz. Retz. Pr. 2. Liljebl. Dicks. Hoffm. Enum. Roth. Tent. Willars. Wither. Bellardi. Gmel. Syll. Linn. Verrucaria confluens Wigg. Hoffm. Fl. Lich. & Deut. Fl.
Verrucaria nigro cinerea Mærklin.

Icon.

× 124 * L. conspurcatus. Engl. Bot. 11. 964. crustaceus crassus rugosus cinerascens initio niveus, scutellis exiguis fuscis demum concavis nigris.
Lecidea? conspurcata. Ach. Meth. 50.

125. Verrucaria muralis. Ach. Meth. 115.

125.* Lichen diacapsis. Engl. Bot. 28. 1954.

125.** L. tessellatus Engl. Bot. 8. 533. leprosus tenuissimus rimoso-tessellatus cinerascens, tuberculis immersis atris convexis lævibus. Verrucaria muralis β. Ach. Meth. 115.

126. Lecidea confluens. Ach. Meth. 40.

Engl. Bot. 28. 1964.

Fig. 5 J. E. Smith's description of *Lichen tessellatus* in his annotated copy of *Lichenographiae* . . . Library, Linnean Society of London.

genus native of our countries. I have marked 6 with numbers, and upon these I beg your opinion.' (Turner, 1802*b*).

In his reply to Turner, Swartz wrote:

'Acharius works now upon a general synopsis of the Lichens which will be good . . .' (Swartz, 1802*a*).

A few days later he wrote to Smith:

'Acharius is now working on his new opusculum upon the Lichen tribe. He goes on upon quite a new principle and I think it will do him honour. We have lately had a consulta [sic] in order to settle a number of undetermined points. It will be printed very soon I hope. He rejoiced greatly by getting your last favour.' (Swartz, 1802*b*).

Turner had by now begun writing long and informative letters to Swartz about the progress of botany in England, as well as keeping up a lively lichenological dialogue:

'I trust there is not the least doubt of your having received long before this time not only the parcel which I sent thro' the medium of Mr Dryander, but also the copy of my Synopsis, which, on the 31 May, I consigned to the care of our London merchant, who promised to forward it to you by the earliest opportunity. I fully intended to have sent you some more plants at the same time with the book, and also to have thanked you for your friendly letter of the 13 April, but I was called upon for it sooner than I expected, and since then have hardly had a single moment to myself, for in the beginning of June I set out from Yarmouth, proceeding as fast as I could to Ireland, where I stayed 16 days, examining the environs of Dublin, and afterwards returned thro' Angelsea and North Wales, so that I am but just home again.

I had expected great botanical treasures in Ireland, and had purposed penetrating into the southern part of that little explored Island, but various events contributed to disappoint me, for my time was short; travelling in Ireland is very tedious; and above all, Dr Scott, Professor of Botany in

Dublin, at whose house I visited, and who was to have accompanied me, was in such indifferent health that he was unable to undertake the journey, and persuaded me to continue in the metropolis. On these accounts this part of my tour was very unproductive in point of natural history, but, from what little I saw in the environs of Dublin, I am convinced that the muscologia of Ireland would, if examined by a botanist as skilful and accurate as you are, bid fair to rival yours of Sweden and Lapland, such continual rain falls in every part of the country, and it is composed of such a series of old woods, rocky mountains, lakes, and dep dells. I gathered at one place several species, among which I expect to find one or two nondescripts, but at present I have not had time to look at any. When I have, you may depend upon it that I will carefully lay by for you whatever is worth your acceptance. The Botanic Garden at Glasnevin, near Dublin, far exceeds in magnificence anything of the kind in Britain. It contains 27 English acres, besides a fine house for the Professor (who has a salary of £300 per annum and an additional £100 for travelling expenses) and 5 hothouses and greenhouses, about 60 feet long, 23 wide, and 25 high. At present however it is only in its infancy, and not well filled, but the gardener, Mr Underwood, is a pupil of the late Mr Curtis', and bids fair to bring it to great perfection.

In Wales I was more fortunate in point of botany, but terribly unlucky as to weather, for when I climbed the famous mountain, called Snowdon, the highest in the principality, I was above half the way so immersed in the clouds, that I could see nothing on either side of me. I nevertheless brought home a pretty good collection of many British Alpine plants, and, what was of more consequence, confirmed my acquaintance with Rev. Hugh Davies, and Mr Griffith, so that I shall have no difficulty in hereafter procuring any of the productions of that country.

I have written thus much entirely about myself, not only under the hope that the subject will be interesting to you, but to shew that I wish you to do the same in return, and I therefore hope you will regard it as an example, by acquainting me with any excursions you make, or any particulars of the natural history etc of your country . . . I am about to apply myself closely to the Ulvae and Lichens, under the hopes that I may possibly at some future day write a Lichenographia Britannica. My Ulvographia, I trust, will be ready next year, with figures of every known species. Would it be possible for me to obtain the honour of admission into your celebrated Academy? I ask as a stranger and as one who is aware that he has little claim to such a distinction. Pray do not fail to let me hear from you *immediately*.' (Turner, 1802*c*).

Swartz replied warmly to Turner:

'You have obliged me very much by the communication of the Scientifical News. I am very glad to receive them. We are by far not so productive in this corner. My friend Acharius works upon his Lichenographia, which I dare say will afford [a] good deal of amusing instruction to the reader. It is to be printed soon and contains everything that has come to the knowledge of the indefatigible observer.' (Swartz, 1802*d*).

The same day Swartz wrote also to Smith informing him:

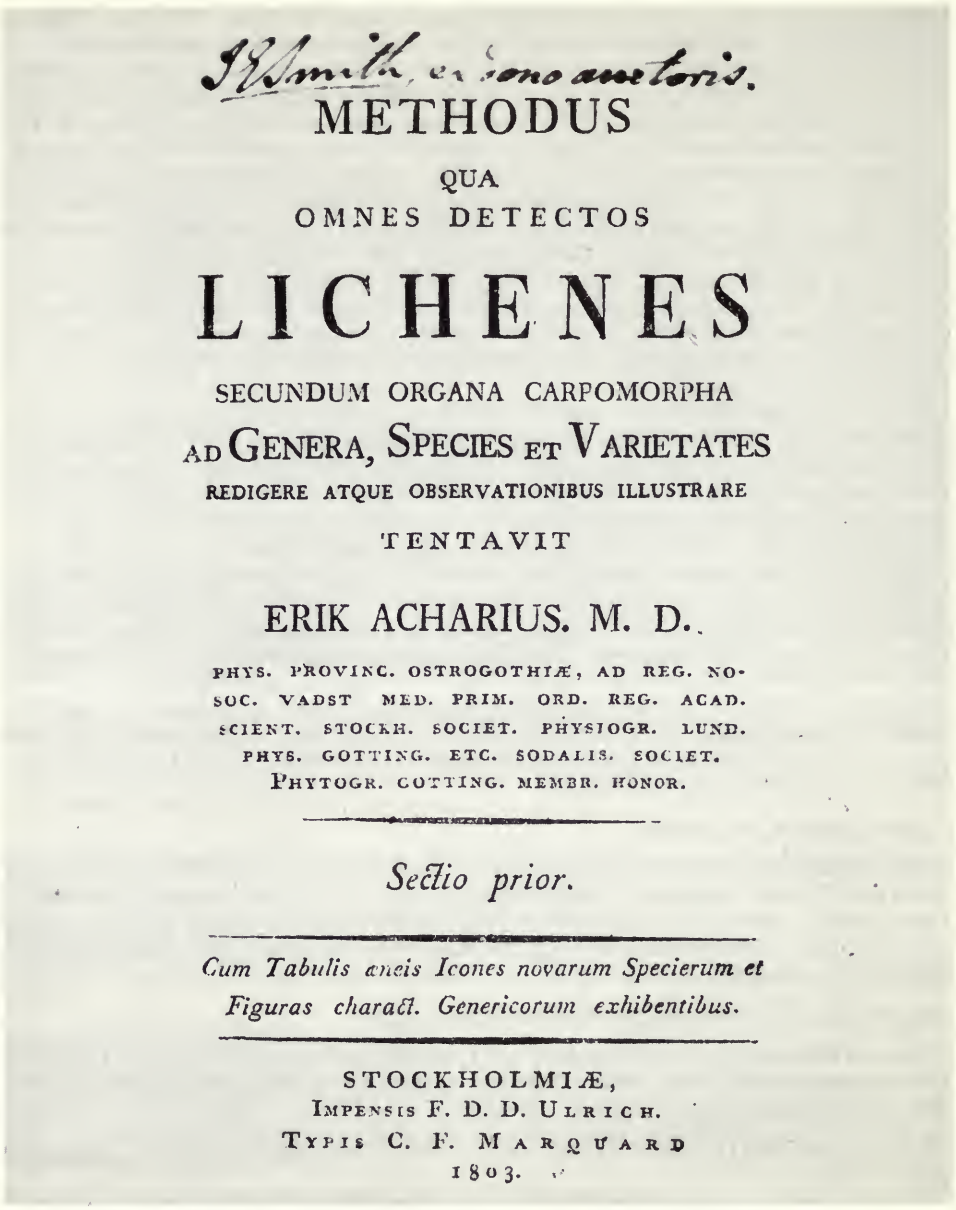
'Acharius works upon his Lichenographia, and I think the printing will begin soon. He has told me to be very anxious to get some information from specimens you may perhaps have promised him. This work will be very good.' (Swartz, 1802*d*).

The following month (October) Swartz sent to Smith a further parcel of lichens with the message:

'some lichens and some other plants . . . you'll find also a pack from our friend Acharius . . . Acharius is sorry that he did not get before winter what you had sent him. Probably it is in London still remaining. His *Methodus Lichenum* is now printing. A very good work indeed.' (Swartz, 1802*e*).

Meanwhile the parcel of lichens that Dawson Turner had sent to Sweden earlier in the year had not reached its destination, a circumstance Turner regretted in a letter to Swartz:

'The pleasure, which your obliging letter of the 10th September gave me, was, I am sorry to say, sadly damped by the information that neither the parcel I sent to you through the medium of Mr Dryander on the 12th April, nor the copy of my Synopsis, which I afterwards trusted for you to a London Merchant, had yet reached your hands. The loss of the latter would be of no consequence, as I can immediately replace it, and will do so with great pleasure, if it have not yet found you: about the parcel I must own I feel anxious, for it contained most of my rarest British Fuci, several lichens, among which were some from Dickson himself . . . I am therefore fearful that its non arrival may cause you some inconvenience. It contained likewise a letter, proposing you to exchange every



J. E. Smith, ex dono auctoris.

METHODUS

QUA

OMNES DETECTOS

LICHENES

SECUNDUM ORGANA CARPOMORPHA

AD GENERA, SPECIES ET VARIETATES

REDIGERE ATQUE OBSERVATIONIBUS ILLUSTRARE

TENTAVIT

ERIK ACHARIUS. M. D.

PHYS. PROVINC. OSTROGOTHIÆ, AD REG. NOSOC. VADST MED. PRIM. ORD. REG. ACAD. SCIENT. STOCKH. SOCIET. PHYSIOGR. LUND. PHYS. GOTTING. ETC. SODALIS. SOCIET. PHYTOGR. GOTTING. MEMBR. HONOR.

Sectio prior.

Cum Tabulis aneis Icones novarum Specierum et Figuras charact. Genericorum exhibentibus.

STOCKHOLMIÆ,
IMPENSIS F. D. D. ULRICH.
TYPIS C. F. MARQUARD
1803.

Fig. 6 Title Page of *Methodus* . . . (Acharius, 1803*a*). J. E. Smith's copy, Library, Linnean Society of London.

> British and Swedish lichen in our several collections, however common, and telling you that I had then sent no mosses, because Mr Dickson had promised me to supply you himself . . . If your herbarium be rich in duplicates of Lichens, I should very much wish to make with you the exchange I have mentioned above; and, if you like it, I would extend the proposal also to foreign species. My collection is already the best in this country, and I will spare neither trouble nor expense to make it one of the most perfect in the world . . . My Ulvographia occupies me, but I still think of a general Fucologia, and a Lichenographia Britannica.' (Turner, 1802*d*).

The publication of *Methodus qua omnes detectos lichenes* (Acharius, 1803) (Figs 6, 7) was first intimated to Smith by Acharius in a letter dated 28 April 1803 (Acharius, 1803*b*), and in a letter from Swartz shortly after:

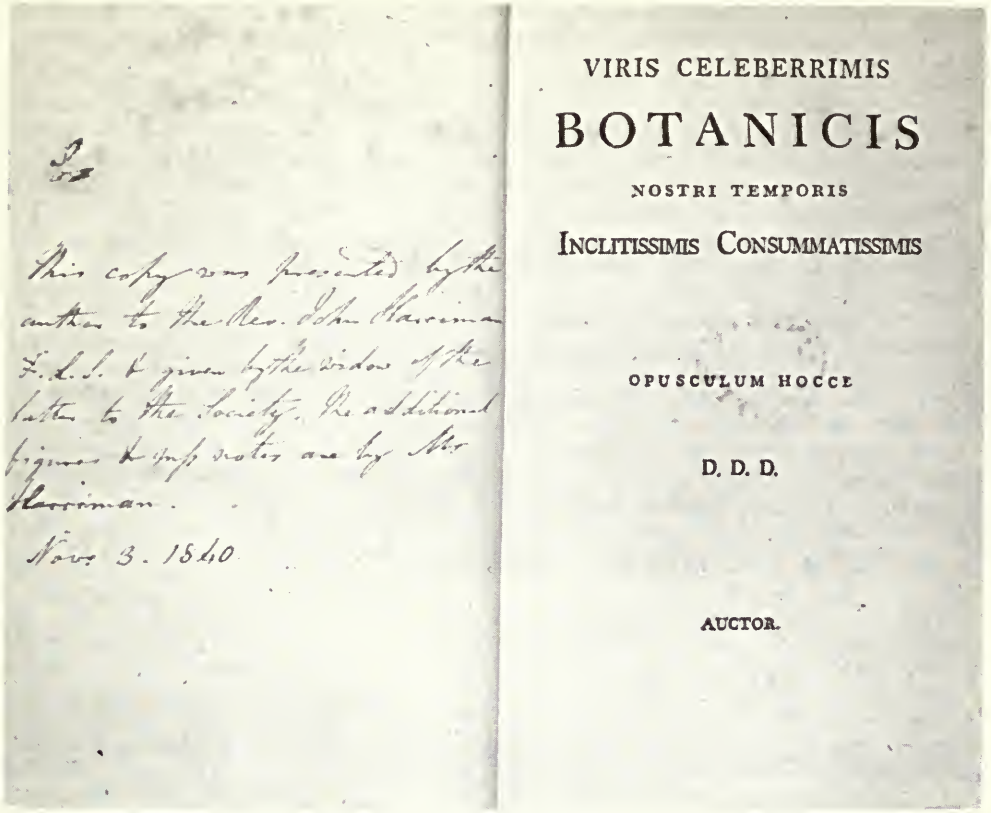


Fig. 7 Fly leaf of *Methodus* . . . presented by Acharius to the Rev. John Harriman (1760–1831). Library, Linnean Society of London.

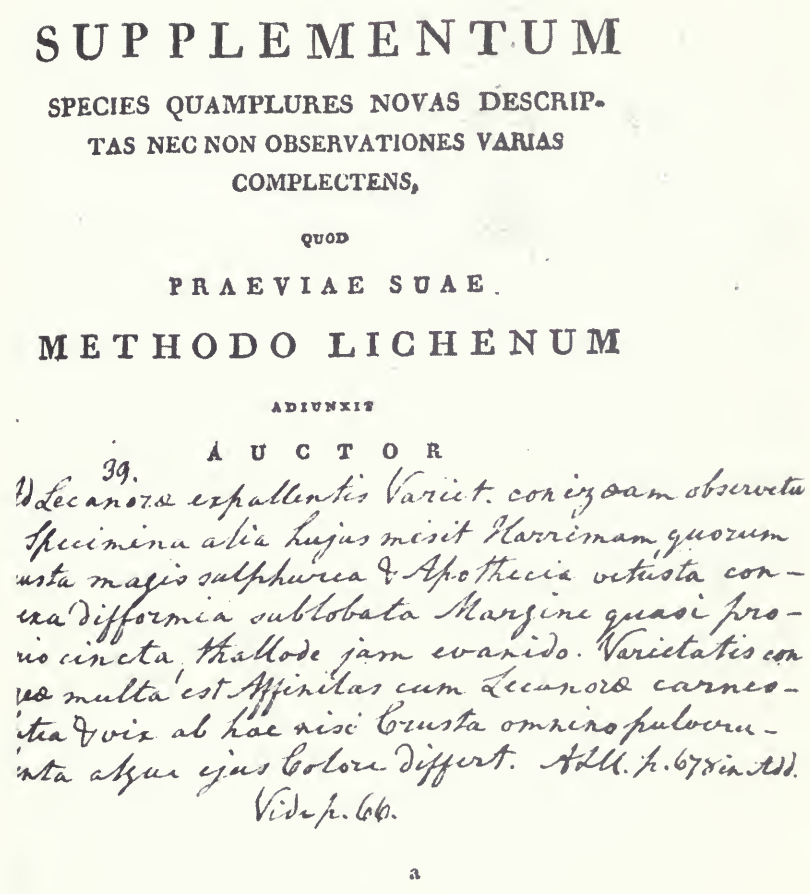
> '. . . most impatiently do I now wait for the arrival of what you have promised to send me and my friend Acharius. May it have a better fate than the sendings last year which appear to be lost! This new unhappy War I am afraid will occasion new impediments for our literary intercourse. If I am happy to receive anything from you I shall inform you directly as Dr Acharius undoubtedly also will do. His *Methodus Lichenum* is already printed, and I have at his desire sent you and Sir Joseph Banks a copy within these three weeks by a countryman who may at present be arrived in London. Please to ask for your parcel at Sir Jos. Banks's. The *Supplement* is still wanting, it is printing actually at Liepzig, and you may probably have it in the Autumn.' (Swartz, 1803*a*) (Fig. 8).

Turner, who was preparing a paper on some new lichens for the Linnean Society's *Transactions* (Turner, 1803*a*, 1804*a*) wrote about this to Swartz:

> 'What would I not give were you near enough to inspect and correct my manuscript? I have no friend in England who is able to do me such an office, and for want of this, I am but too certain I shall fall into many errors. I presume from your letter that Dr Acharius has already published his *Methodus Lichenum*, and I hope therefore that before many months our booksellers will have imported it. I shall look forward to the receipt of it with much eagerness, for the Lichens are so very favourite a tribe with me, and I am never without hopes of one day writing myself a Lichenographia after which I shall consider myself "donatum jam sude".' (Turner, 1803*b*).

In response to Turner's second parcel of lichens to replace the first that had not reached Sweden, Swartz replied:

> 'To my particular satisfaction I found even in the same parcel an excellent heap of Lichens, by which I have got a good deal of instruction. But in order to give you a more adequate opinion about them, I communicated them instantly with my friend Dr Acharius; whose knowledge of this tribe is



SUPPLEMENTUM

SPECIES QUAMPLURES NOVAS DESCRIP-
TAS NEC NON OBSERVATIONES VARIAS
COMPLECTENS,

QUOD

PRAEVIAE SUAE.

METHODO LICHENUM

ADIUNXIT

AUCTOR

39.
Lecanora expallentis Variet. conizoam observata
Specimina alia hujus misit Harriman quorum
usta magis sulphurea & Apothecia vetusta con-
vexa difformia subtobata Margine quasi pro-
rio cincta, thallode jam evanido. Varietatis con
so multa est Affinitas cum Lecanora carnea-
tia & vix ab hac nisi Crusta omnino pulveru-
nta atque ejus Colore differt. Addl. p. 678 in Add.
Vide p. 66.

a

Fig. 8 Title of Supplement to *Methodus* . . . The Rev. John Harriman's copy. Library, Linnean Society of London.

indubitable, and I give you here a succinct explanation as he has found the sundry species. He has lately published his new *Methodus Lichenum* in which he has himself by this communication detected some errors. You may probably desire to enter upon an epistolary interchange with him, as well in behalf of particular specimens, as an account of various elucidations, which he certainly might be able to give. In the mean time he begs to be remembered to you. If you write to him, the letters may be addressed by the way of Hamburg or Gottenburg to – Professor Dr E. Acharius. Wadstena. Sweden.' (Swartz, 1803*b*).

Because of difficulties in the passage of mail between Britain and Sweden, Dawson Turner did not receive Swartz's letter for eight months. Meanwhile he wrote to Swartz:

> 'I must thank you for endeavouring to get me some lichens from Dr Acharius. I should be glad if you would ask that gentleman whether he ever received a letter I wrote him 3 or 4 years ago, and inclosed in a parcel from Dr Smith. I have often thought it unhandsome that he did not answer it, but, from something I lately heard, I suspect it never reached him . . . I am sorry I am not able to say anything about the opinions you were so good as to give me of the Lichens I sent, as I have not yet been able to get Dr Acharius' Dispositio. I believe there are but two copies in England, one Dr Smith has, which he will lend me as soon as I am ready to use it, another Mr Winch of Newcastle writes me that he has. I hope soon to receive from you a parcel of Lichens, for I am exceedingly fond of the genus; and I doubt not but by the time they arrive my bookseller will have procured me the work. Dr Smith is quite well; his third vol. will be published in a few days, after which he immediately applies to the Flora Graeca. Mr Lambert's splendid monograph of the Genus *Pinus* has appeared, but I have not yet seen it. I understand a coloured copy costs 40 guineas, which is a most absurd price. Sir Jos. Banks has been very ill with the gout, but I had a letter from him a few days since, in which he says he is better. He is going to adopt a milk diet, from which, if his constitution will support the change, he promises himself great benefit. I hope God will prolong a life, so interesting to all science, and to all the civilised world . . . It would give me great pleasure to enter into a literary correspondence with Dr Acharius, which I would thank you to tell him, and give him my address. All is quiet in England, and at this time but little afraid of Invasion. Should the French come, they will find things more prepared to receive them than they expect.' (Turner, 1804*b*).

In May 1804 Turner wrote again to Swartz:

> 'It is such an age since I had the pleasure of receiving a single line from you, that I cannot help feeling myself both surprized and vexed; nor can I avoid entertaining apprehensions lest some illness or unpleasant occurrence should have caused your unusual silence. I trust you have long since received a letter, which I wrote you on the 2nd February, and upon the proper arrival of which I should not entertain the least doubts, had I not by the same mail written to my friend, Mertens, from whom also I have yet received no answer. In case that letter miscarried, pray have the goodness to let me know; for it contained some information on the subject of Mosses, which I wish not to be lost, and which I would send again at some future opportunity: it thanked you too for your offer of introducing me to your friend, Dr Acharius, and said how happy I should be to enjoy the correspondence of so able a Botanist. From the unfortunate interruption to our communication with Germany, occasioned by the stoppage of the Elbe, his *Methodus* has not yet found its way to our English booksellers, nor have I had any opportunity of examining it, but Dr Smith, who went to London two days ago, has just sent me his copy to keep during his absence, so that I promise myself in a day or two a rich botanical treat . . . The first part of the Flora Graeca may now very soon be expected; and a new work, to be edited by Mr König who lives with Sir Joseph Banks, to be called *Annals of Botany*, and to appear quarterly: it will much resemble Dr Schrader's Journal . . . Can you favour me in your next letter with specimens of *Lichen sylvaticus* in fruit, *sarmentosus* with shields, *arcticus*, *muricatus*, and *divergens*? My desiderata from Acharius's *Methodus* are numberless, but I have many species which he has not included. I hope however, many weeks will not pass before I receive from you a large parcel of your Lichens, especially the crustaceous kinds. I mean to go to Wales in June, and then shall to be able to repay you.' (Turner, 1804*c*).

Shortly afterwards, Swartz was able to assure Turner of Acharius's willingness to correspond with him:

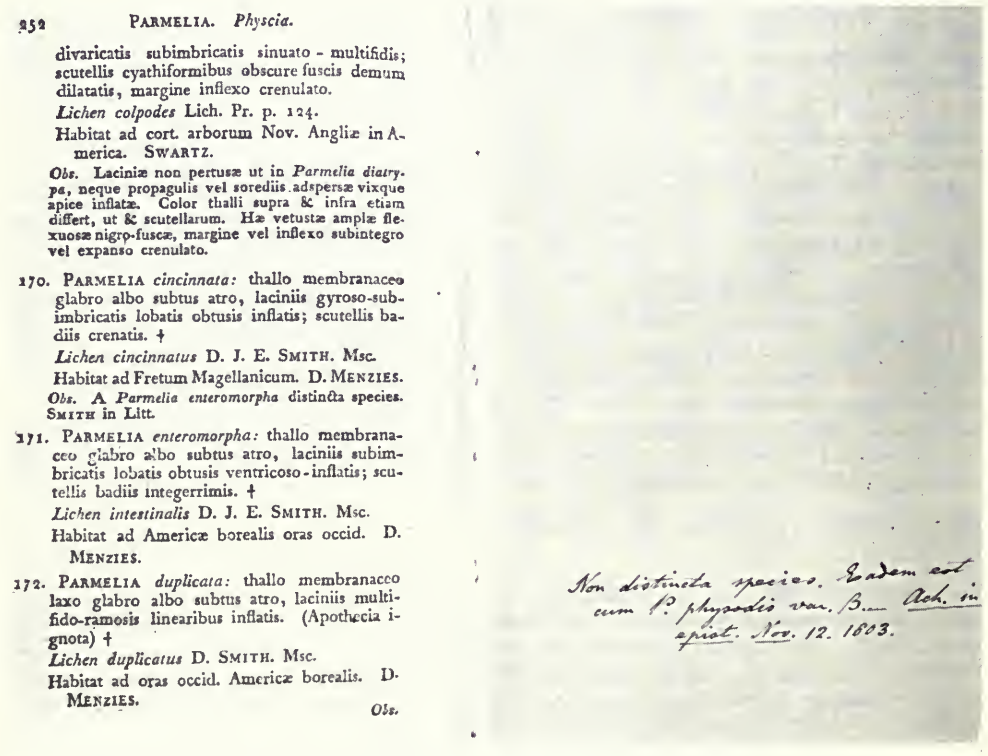
> 'Dr Acharius will also estimate himself happy of your acquaintance, and would have written long since if not a domestic calamity had befallen him, poor friend he lately lost him a kind wife! I now write to him to salute him on your part. He never got any letters from you. In the copy of his *Methodus* which you got from Dr Smith the supplement I suppose is still wanting. It was afterwards printed in Liepzig, and could accordingly not be sent at the same time. It contains mostly new species discovered by Wahlenberg.' (Swartz, 1804*a*).

Acharius's *Methodus* and its reception in England 1804–1806

At the time of publication of the *Methodus*, Smith and Turner were among the most active lichenologists in England and both, using Swartz as a catalyst, had established a correspondence

with Acharius at Vadstena, regularly sending him specimens. Smith, the more conservative lichenologist of the two (he never completely dissociated himself from the use of the genus *Lichen*), first received Acharius's book and wrote to its author on 24 April 1804:

> 'Dr. Swartz tells me you understand English perfectly* and therefore I shall indulge my indolence in writing in my own language, only requesting you to continue to write in Latin if you please. I am in your debt for three very kind letters dated 8 December 1802, 28 April and 12 November 1803 [this last is not preserved in the Smith correspondence in the Linnean Society of London's archives]. I have also received a valuable parcel of lichens and Mosses, as mentioned in your first letter. For all these, as well as for your *Methodus Lichenum*, which I have eagerly studied, accept my best thanks. I am very sorry my first parcel did not reach you. The times are unfavourable for communication. There were not (however) any South Sea plants in that parcel, only European Lichens – and I am glad you received my second parcel, which was of more consequence. I beg leave to make a few remarks in reply to yours upon my specimens. In the parcel I am now preparing for you I enclose more specimens of *Lichen conspurcatus Engl. Bot.* t. 964. I think they will prove it be of a distinct species of *Lecidea*. I have traced its scutellae through their whole growth and they are quite distinct from my corpora parasitica. I beg however, you will never pay any regard to my opinion in this or other matters than you find it deserves. Correct me freely when I deserve it.
>
> *Lichen duplicatus* I cannot help thinking very distinct from *physodes* [Fig. 9]. Mr. Menzies thinks it indeed may be a variety of *enteromorpha*, of which I now send you a good specimen. Pray observe the *scutellae turbinatae* . . .
>
> I write this letter a day or two before my departure for London and shall take with me a parcel for you containing some New Holland specimens, which I hope will please you and a very few new or curious Lichens, on which I beg your opinion. I shall also send you the 3rd volume of my Flora Britannica. Do you want the first and second? In my 4th volume I shall profit much by your learned



252 PARMELIA. *Physcia.*

divaricatis subimbricatis sinuato - multifidis; scutellis cyathiformibus obscure fuscis demum dilatatis, margine inflexo crenulato.

Lichen colpodes Lich. Pr. p. 124.

Habitat ad cort. arborum Nov. Angliæ in America. SWARTZ.

Obs. Laciniæ non pertusæ ut in *Parmelia diatrypa*, neque propagulis vel sorediis adspersæ vixque apice inflatæ. Color thalli supra & infra etiam differt, ut & scutellarum. Hæ vetustæ amplæ flexuosæ nigro-fuscæ, margine vel inflexo subintegro vel expanso crenulato.

170. PARMELIA *cincinnata:* thallo membranaceo glabro albo subtus atro, laciniis gyroso-subimbricatis lobatis obtusis inflatis; scutellis badiis crenatis. †

Lichen cincinnatus D. J. E. SMITH. Msc.

Habitat ad Fretum Magellanicum. D. MENZIES.

Obs. A *Parmelia enteromorpha* distincta species. SMITH in Litt.

171. PARMELIA *enteromorpha:* thallo membranaceo glabro albo subtus atro, laciniis subimbricatis lobatis obtusis ventricoso-inflatis; scutellis badiis integerrimis. †

Lichen intestinalis D. J. E. SMITH. Msc.

Habitat ad Americæ borealis oras occid. D. MENZIES.

172. PARMELIA *duplicata:* thallo membranaceo laxo glabro albo subtus atro, laciniis multifido-ramosis linearibus inflatis. (Apothecia ignota) †

Lichen duplicatus D. SMITH. Msc.

Habitat ad oras occid. Americæ borealis. D. MENZIES.

Obs.

Non distincta species. Eadem est cum P. physodis var. β.— Ach. in epist. Nov. 12. 1803.

Fig. 9 J. E. Smith's annotated copy of *Methodus* . . . Library, Linnean Society of London.

* In a postscript to a letter to Turner dated 31 August 1806, Acharius commented 'I understand English very well but cannot write it with prosection [sic].'

remarks on Lichens, but do not blame me if my opinion on speculative points differs sometimes from yours. Neither dare I change names so freely as you have done. I must keep in view those Laws of Linnaeus which are sanctioned by experience and founded in justice. If you and I do not follow his good principles how can we call others to account? The great Hedwig shall never lead me to use the unnecessary word *sporangium* for *capsule*. It is easy enough to invent new words. Genius appears best in using old ones properly. I dare not change *Umbilicaria* for *Gyrophora* though I should have preferred the latter at first. I beg to observe that *Lichen pustulatus* is a true *Gryophora*. I regret that there should be a word in your excellent book that I cannot zealously defend as a friend ought: but I know we cannot all think alike in philosophy any more than in religion . . .

I will propose to the Linnean Society to exchange Their Transactions for something you send. The Linnean Society will be very thankful for any manuscript dissertation of yours for their Transactions. Thank you for your kind enquiries – my health is now restored I had a long illness.' (Smith, 1804).

Dawson Turner, more highly enthused by Acharius's new work than Smith, wrote to Swartz:

'I have just been fortunate enough to procure for myself a copy of Dr Acharius's *Methodus*, and have been arranging the greatest part of my Lichens by it. I agree in great measure with his distribution of the genera, and his remarks as to many of the species have very much pleased me. He is however frequently mistaken about the British Lichens, as I shall be happy to convince him, if he will enter into a correspondence with me. You will probably have the goodness to furnish him with my direction, and tell him I shall be much pleased to be favoured with a letter from him, indeed I would write myself but in his present domestic affliction I too justly fear it might be deemed an intrusion. Pray can the papers he has published in your *Nov. Acta* be procured? Of these I have the 15th, 16th and 17th volumes; all the 18th except the Numbers for July, August and September; and all the 20th except the last number: could you procure me the rest of Dr Acharius's papers, I would repay the expense involved with a great many thanks. I see by his *Methodus* that I want all your West Indian Lichens, but on the other hand I possess a considerable number that he has not included, and should I, which I still hope, be fortunate enough to obtain Dickson's collection, I shall be rich indeed in new ones. Even if I fail in this expectation, I am sure Sir Jos. Banks will supply me with all that may arrive hereafter. I am ignorant how readily English books find their way to Stockholm; but I trust if any Botanical publications that would interest you, should appear here, and you be at a loss to procure them, you will never hesitate to apply to me, but be assured that the making me useful to you is one of the greatest kindnesses you can confer.' (Turner, 1804*d*).

Swartz, writing to Turner on the same day as the preceding letter, answered a number of Turner's queries:

'Besides some species of mosses there is also a letter from Prof. Acharius, who salutes you most earnestly and wishes your future acquaintance. He certainly can provide you with some that are out of my reach. He works constantly on the further accomplishing of his *Methodus* – that he sometimes has been mistaken in regard to English species he knows very well, but this he will acknowledge and correct in future. (Swartz, 1804*b*).

That Acharius had a strong advocate for his taxonomic views in Dawson Turner can be seen from extracts from the latter's publications dating from this time, and in the following letter to Swartz:

'I cannot tell you how much pleasure I have received from your letter of the 14th December, [not preserved in the Turner correspondence in Trinity College Library, Cambridge] which has just reached my hands, and which I hasten immediately to answer, wishing very much that the correspondence between us should grow far more frequent than it has even hitherto been . . .

I particularly lament the detention of Dr Acharius' letter, and wish it had been sent by post, for I am anxious to have a communication with him: especially as I am about to describe several new Lichens for our Linnean Society, and have been particularly attracted to these plants lately. I am very much pleased with the outline of his new Genera, but there are parts I wish altered, and also I regret his having used so much Greek, for we in England we are not scholars enough to comprehend the meaning of his names of them and certainly far from *ενφωνοι*. At the request of Mr König I wrote a hasty critique upon his *Methodus* for the second number of the Annals of Botany.' (Turner, 1805).

Although König & Sims (1804) presented a synopsis of the *Methodus* in their literature review, it was left to Turner (1804*b*) to publish the first considered examination of the work in an English

journal, and a most thoughtful and enlightening account it is. While convinced of the necessity of employing generic units of a more closely defined character than the old collective genus *Lichen*, Turner was not slow to offer constructive criticism of the taxonomic system devised by Acharius, and some of his remarks may be recorded here:

> 'In our opinion, which however we give with becoming diffidence, Dr. Acharius has by this new distribution done no small service to this department of botany; but whether all the genera he has adopted will stand the test of future inquiry, and whether all the species will be allowed to retain the places he has assigned to them, we have already expressed our doubts. It is always to be feared that the author of any system may adhere to his own principles so closely as to lose sight of nature, and thereby cause confusion.
>
> With regard, however, to the changing of specific names, we cannot consider him altogether blameless; and we wish we could bring him and some other eminent botanists to our opinion, that nothing tends so much to involve the science in chaos, and nothing is so unworthy of a real naturalist. Indeed, it is the common trick of every pretender to science, who has no other means of rendering himself conspicuous. We could wish too, that, in forming new names, the author had availed himself less of his Greek learning.
>
> In short, however we may differ in opinion on trifling matters, we here take leave of what we consider the most excellent work we ever read upon the Lichens, and earnestly recommend it to those among our readers whose attention has been directed to this interesting tribe, wishing Dr. Acharius health and leisure, to continue to throw light upon their physiology and history.' (Turner, 1804*b*).

Of Turner's review Swartz wrote two years later:

> '. . . the review of Dr Acharius's *Methodus* I have communicated to him. He writes to me, that he finds several remarks well-founded, and that he has already in many instances adopted the same ideas. The number of his species is greatly increased since the publication of his *Methodus*, from the frequent communication of his friends throughout Europe. This will also enable him to render his work more complete in future. He has separated from the *Opegraphae* (in my opinion very judiciously) several species, which will form a different genus, called as I believe *Arthorica* [sic]. The genus *Baeomyces* will also be differently arranged.' (Swartz, 1806*a*).

The first descriptions of British lichens using Acharius's new taxonomic arrangement were made by Dawson Turner and, in an interesting preface to his *species novae*, he commented upon the relevance of Acharius's work to English lichenology in the following manner:

> '. . . *Methodus Lichenum*, a work which may in my opinion be regarded as tending most essentially to facilitate the study of this obscure, yet beautiful and interesting tribe of vegetables, as laying the foundation for enabling us to prosecute the investigation of them upon solid principles, and as having thrown more light upon their real nature and physiology, than could reasonably be expected in the present imperfect state of our acquaintance with the subject. The genera established by this able author are already almost universally received among the botanists of neighbouring countries; and it is with peculiar satisfaction that, convinced myself by experience of their excellence as well as of the necessity of employing them, I avail myself of an opportunity of directing towards them the attention of the naturalists of Britain. It is by no means my intention here to enter into an enumeration of the various attempts which had previously been made to subdivide the vast tribe of Lichens, or even to offer any observations upon the Acharian system, further than may be called forth by the particular individuals which I am about to describe. Such enquiries, however interesting to myself, would lead me into a field far too wide for my present object; and, as in describing the plants themselves I shall have occasion to give the definitions of the genera to which they belong, I will merely add, that I trust I shall not be accused of presumption or of an idle itch for innovation, in being the first who ventures to use in Britain a new arrangement of these plants. No one is more deeply impressed with a sense of the necessity of rigidly abstaining from all useless alteration of names, or multiplication of synonymy. Our botanical nomenclature is already so extensive and intricate as to be perplexing to all, even to those most conversant with the subject, and to deter many from joining us in the prosecution of the science; yet considerations of this nature must not be allowed to be carried too far. Every branch of human knowledge requires in proportion to its development an extension of its technical terms, without which its progress would effectually be checked. Had this been denied, the discoveries of Linnaeus or of Hedwig themselves had been nipped in the bud; and I must be allowed to state it as my opinion that many of the alterations

proposed by Dr Acharius in the nomenclature of the Lichens, however troublesome it may be to us at present to unlearn what we have long since learned, will be found not less important in extending the knowledge of these plants than his new system. Upon that propriety, or rather the necessity, of sub-dividing the numerous vegetables now arranged under the one vast genus, *Lichen*, and I believe all botanists, who have bestowed upon the subject an attention the most superficial, to be so fully agreed, that there is no occasion for a single argument to be employed: were any necessary, the most substantial one would be found in the number of British Species, which is already known to amount to 350, which is almost daily increasing, and which comprehends various tribes of a nature the most dissimilar to each other. It only remains for me, therefore, to express my obligations to my friend Mr Borrer, who has furnished me with the materials of the present paper, who has applied himself to the study of the indigenous Lichens with a zeal and success which I believe to be altogether unrivalled, and whose opinions, I am happy to add, coincide with my own.' (Turner, 1808).

Acharius's gift of lichens to the Linnean Society of London 1805–1808

In a postscript dated 25 May 1804, J. E. Smith inquired of Acharius:

'If you could send the Linnean Society a tolerably complete collection of Lichens, good specimens named by yourself and referring to your works, they would be glad to make you any return by sending their Transactions of otherwise.' (Smith, 1804).

This simple suggestion was to have far-reaching consequences and, though it was to take eight years for the mutual exchange to be successfully accomplished, guaranteed British lichenology a handsome share of original material upon which much succeeding lichen taxonomy would be based. Its value has only been widely recognized and appreciated following its purchase by the British Museum (Natural History) in 1963.

To Smith's suggestion Acharius replied with warmth:

'Reflat sensu Tibi adnunciare, me ferulo elaboratae in paranda collectivae, qualitomum fiori potesste longletissima, Lichenum meorum, pro Societate Linneana. Sunt jam hunc in fincos circa 500 species designatae cum plurimus exorum varietatibus e modificationibus, sollicite papyro e nitida afixe atque adornatae, quibus priqutis, non visa mea adsoribenda fuit. Sed cum in dieu ad angetur tuo me collectis, etiam Genera quasi Species non raro mutentur e corrigantur, malui diferre missionem, quam eam professtinare; tamen decrevi proxima nave incuntis anni omnia ea mittere quae tunc in parato sunt. Reliquae Species comparandae postea mitti posunt. Latin opeross fuit mea cura in haec collections conficienta nam instrumentem ? finimal e quousque fici potuit nitidam habere volui. Saepe specissima propria e unica bipartite coactus fui, ne quaedum Species ex illis desiderentur quarum exemplar dure potueram.' (Acharius, 1805).

In reply to this Smith wrote to Acharius:

'Your letter of October 15, 1805 so full of information and candour should not have remained so long unanswered had I not but too good a reason for my silence, as well as for neglecting all business that was not absolutely necessary. This was my ill health. Ever since the beginning of November I have been more or less indisposed. My complaint was a carbuncle (*anthrax*) on the leg and for many weeks I could hardly sit up to write. It is now quite healed and I am going to London on the 13th for about two months as usual . . . The collection of Lichens which you are preparing for the Society will be a lasting monument to your fame and highly welcome to us. I hope this spring to forward to you all the volumes of our Transactions as a testimony of our gratitude. I shall propose this at the very first meeting of the Society at which I am present. As you have already made the collection so considerable I hope you will (as you say) send it by the first ship, for the Society has now a spacious and handsome house and we wish to increase our museum as much as possible . . .

You have long been a Foreign Member of the Linnean Society and your name in the printed lists, of which I send you one for the year 1803. I know not why your diploma has not been sent but will enquire about it. The rule of not adding to the number of foreign members till it was reduced by death to 50 was dispensed with expressly *in your favour*, which has not been done for any other person . . .

I cannot sufficiently express my admiration of your candour in what you say in answer to my remarks on botanical terms. All I am anxious about is to keep the science in as much classical purity as possible, and as your example will be of the very first weight (both as a Swede and as being at the head of your own department) I am very solicitous that you should co-operate with me in

maintaining all such Linnean laws as experience has proved to be *good* – I will support *no others*. I would therefore be very sparing of new terms – as concise as possible in characters and definitions – and very cautious in changing names. There are very few writers at present who make their specific characters in the true spirit of our great master. This he justly calls "artis robur" and very few have equalled him in it.

I thank you very much for your remarks on many new species of Lichens in your letter – I have not yet studied them all, but in most that I have examined I fully agree with you. I must take up the subject with attention soon in order to finish the 4th Vol. of Fl. Britca., which is much wanted. I have not been able to procure you specimens of the shields of *L. limbatus* and *fuliginosus*, for I was prevented going to Wales (where they grow) last summer, nor do I know any method of procuring them. I will however, not forget your wishes. I have spent almost a whole day in looking over hundreds of specimens before I found any shields.' (Smith, 1806).

Smith was as good as his word, and in a Council Minute of the Linnean Society of London for 21 May 1806 it was:

'Order'd, That a copy of the Transactions of this Society be presented to Dr. Acharius, F.M.L.S., upon his sending to the Society a Collection of specimens of lichens describ'd by him.' (Howe, 1912: 203).

Meanwhile Dawson Turner, who was now thinking seriously of writing a general work on English lichens, wrote to Swartz:

'What an age it is since I had the pleasure of writing to, or hearing from you! I had flattered myself that, tho' I was silent, you would not have refused occasionally to have favoured me with a letter, and I am certain you would not have denied me this pleasure had you known how unfortunately I had been circumstanced since the cessation of our correspondence, now more than a year ago. Domestic calamities of various natures have kept my mind continually harrassed, and withdrawn my thoughts so effectually from Botany, that I hardly supposed I should ever be able to return to it. Among these misfortunes the most prominent have been the loss of a parent after a painful and distressing illness, and that of my only son torn from us in a moment by a calamity of which the remembrance is even now distracting. He was burned to death in his sleep, and that his mother, myself, and the rest of our babes did not share his wretched end was owing to a signal interposition of Divine Mercy. If from my friends Dr Smith or Professor Mertens, or from our English Papers you have heard of these miseries you will not have wondered that I have so long delayed writing to you: if you have not heard of them, I fear that both you and Dr Acharius will have thought me shamefully negligent, but I am satisfied that what I have written will but too well excuse me. To Dr Acharius I shall write by the next post . . . I shall on the other side take the liberty of giving you a catalogue of my desiderata from the *Methodus Lichenum*. These plants particularly interest me, as, to divert my mind, I applied myself some time ago to the collecting materials for a Lichenographia Britannica, chiefly with a view to introducing among my countrymen the knowledge of Acharius' admirable dispositio; and, if Mr Borrer, Mr Harriman, and Mr Griffith will but co-operate with me as I wish, I shall not despair of producing a work that will be interesting to the students of this branch of botany.' (Turner, 1806*a*).

In reply, Swartz wrote to Turner:

'I am charmed to hear that you have a design to elaborate a Lichenographia Britanicanica – it will no doubt be very considerable. The value you put upon my friend Acharius's *Methodus* is very flattering. He is now working upon a editio aucta atque emendata – or something of that kind, which will probably contain great improvements, as it has been in his power to see and observe an amazing deal more of his favourite tribe since the publication, which has indicated to him some – I believe very reasonable alterations of the arrangement, partly occasioned through observations from his friends, and from his own investigations upon the subject.' (Swartz, 1806*b*).

Later the same month (June) Swartz wrote again to Turner:

'Acharius may be able to do something and I suppose he intends to do it – during the course of a 12-month he has been preparing a collection for the Linnean Society's Museum, which will be the truest and surest guide to his *Methodus*. He intends to send off that collection this year. It will be a cadeau to the English amateurs of Lichenology.' (Swartz, 1806*c*).

Turner, writing to Acharius in October, noted:

'I avail myself most readily of your obliging permission to write to you in my native tongue, for I really have so much forgotten Latin from disuse, and compose in it with so greatly difficulty that I never have recourse to it without reluctance, and without some apprehension lest I should not express my thoughts in the manner I intend. I received a few days ago the very kind and instructive letter, which you had the goodness to write to me on the 31st August, and I beg you to accept my thanks for the variety of information you have afforded me, and to be assured of the high sense I entertain of the friendly sentiments you express towards me. Pray believe that I shall always be most anxious to cultivate intercourse between us, and to shew myself deserving of the opinion you entertain of me; and pray favour me with your letters as frequently as possible. It gives me exceeding pleasure to hear that the Manuscript of your *Lichenographia Universalis* is in such a state of forwardness. All the botanical world will expect it anxiously, and be ready to receive from you, their "magnus Lichenum Apollo", the laws which you may be ready to lay down. For my own part I am so well satisfied with the Genera of your *Methodus*, and find them so useful that I am *half* sorry to hear of the changes you meditate. I hope you will not be offended at my presuming to beg of you not to establish Genera upon minute differences, unfit for common use; and at my begging still more strenuously that you would not alter specific names where it can possibly be avoided; even though you could substitute others more appropriate than those now in use. The confusion of Synonymy is the great hindrance to the present progress of botanical knowledge and it is particularly injurious in a tribe so difficult of themselves as the Lichens.

Some of your new Genera I should wish to see inscribed with the names of those Botanists who have made themselves distinguished among these plants: I wish that no tribe has previously been dedicated to you, and that what you have called *Parmelia* might have been called *Acharia*: for myself I hope to have a genus when the Fuci are subdivided as they must be; but I should consider it a favour if you would call one of your Genera of Lichens *Borrera*, in honour of my friend Mr Borrer, whom I consider the most able Lichenologist in this Kingdom, and who is now working with me upon a Lichenographia Britannica. In this task we proceed very slowly on account of the many doubts and perplexities that we find at every step, nor shall we think of publishing anything till your *Lichenographia Universalis* had made its appearance that we may correct our errors by your knowledge, and follow your nomenclature. I will now take the liberty of offering a few remarks upon the observations you made on the Lichens I sent you, and if I am in error I trust you will correct me . . . [then follows a page of comments].

'I have found many new things among the Lichens this summer, but have so nearly filled my paper that I must reserve all mention of them to my next letter when I will also communicate the characters of the new species lately figured in *English Botany*.' (Turner, 1806*b*).

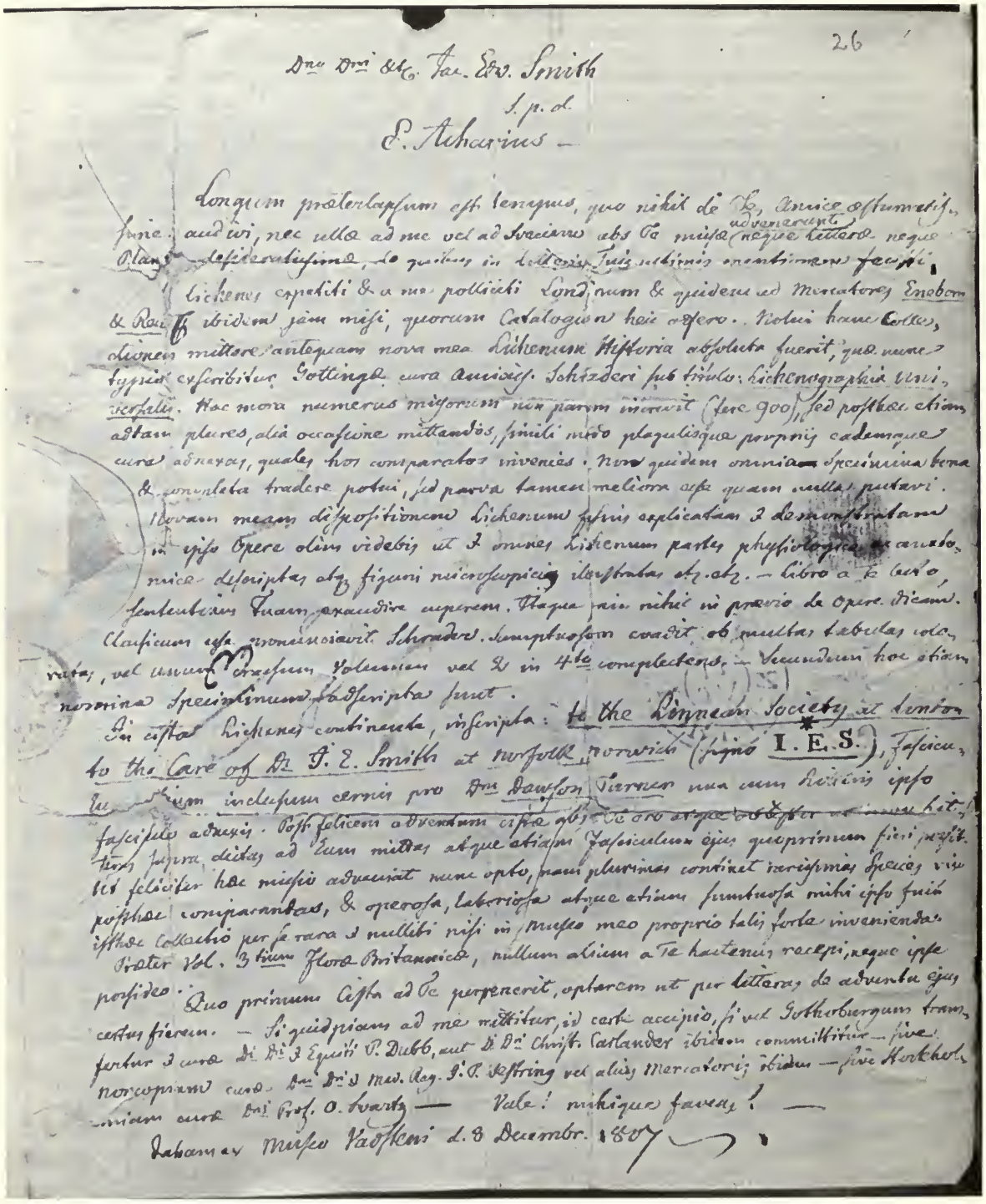
In December Turner wrote to Swartz:

'I have been amusing myself lately with writing a monograph of the genus *Opegrapha*, and you would much oblige me by sending in your next letter morsels, however small, of *Persoonii, nimbosa, vulvella, betuligna, rubella, prosodea, obscura, conglomerata, siderella, cerasi, scripta* and *dendritica*; it appears to me that Dr Acharius has made too many species.' (Turner, 1806*c*).

The emendations to the *Methodus* mentioned by Swartz and which had occupied Acharius for three years since the publication of that work were to be the basis of his next, and largest, work, the *Lichenographia universalis*. In a letter to Smith dated 8 December 1807 (Fig. 10), Acharius gave details of its publication in Göttingen (to be supervised by Schrader), as well as an intimation of the despatch of the lichens for the Linnean Society. Further details of the *Lichenographia universalis* are found in letters written in 1808 by Swartz to Smith and to Turner. Writing to Smith, Swartz observed:

'Even Acharius has proved the adversities of the times on account of his work the *Lichenographia Universalis*, which was to be printed at Göttingen, under the inspection of Prof Schrader (because the enterprise was too great for any home dealer in typography). The manuscript was, above 2/3 parts sent in locum last year, and some time after the printing began, we were shut up, that in the course of 19 months no account could be had. As for present appearances there are but little or no hopes yet to get out of the cage if not quite perished before. Dum delorant . . .

Acharius wrote me some months ago, that he had then received intelligence about the box addressed to London for the Linnean Society that it was at last *post varios caper* arrived to England, but that he still wanted confirmation from you. It would be a real loss, if this sending should have miscarried, because a more instructive present the Society probably could not receive.' (Swartz, 1808*a*).



Dnæ Dnæ &c. Jac. Edw. Smith

S. p. d.

E. Acharius —

Longum prælapsum est tempus, quo nihil de Te, Amice æstimatiss., audivi, nec ulla ad me vel ad Sveciam abs Te missa advenerunt neque litterae neque Plantæ desideratissimae, de quibus in litteris tuis ultimis enumerationem fecisti.

Lichenes expediti & a me politi Londinum & quidem ad Mercatores Enebom & Rau ibidem jam missi, quorum Catalogum hic adjicio. Nolui hanc Collectionem mittere antequam nova mea Lichenum Historia absoluta fuerit, quæ nunc typis exscribitur Gottingæ cura Amicissimi Schraderi sub titulo: Lichenographiæ Universalis. Hac nova numerus meorum non parum increvit (fere 900) sed posthac etiam adhuc plures, alia occasione mittendos, simili modo plagulisque propriis eademque cura adnexas, quales hos comparatos invenies. Non quidem omnia Specimina bona & emendata tradere potui, sed parva tamen meliora esse quam nulla putavi. Rerum meam dispositionem Lichenum systematicam explicatam & demonstratam in ipso Opere olim videbis ut & omnes Lichenum partes physiologice examinatas, nunc descriptas atq figuris nitidissimis illustratas &c. &c. — Libro a Te laudato, sententiam Tuam exaudire cupiem. Plagula jam nihil in proprio de Opere dicendo. Classicum ejus pronunciavit Schrader. Sumptuosum evadit ob multas tabulas colo. natas, vel unum Opus Volumen vel 2 in 4to completens. — Secundum hoc etiam nomina Specimenum adscripta sunt.

In cista Lichenes continente, inscripta: to the Linnean Society at London to the Care of Dr J. E. Smith at Norfolk Norwich (signo I.E.S.), Fasciculum inclusum cernis pro Dno Dawson Turner una cum Lichenis ipso fasciculo adnexi. Post felicem adventum ejus ab Te ore atque oculis capta, tum jussu dicas ad Eum mittas atque etiam Fasciculum ejus quoprimum fieri possit. Tot feliciter hac missio advenerit nunc opto, quam plurimas continet rarissimas species vix posthac comparandas, & operosa, laboriosa atque etiam sumtuosa mihi ipsi fuit ejusce Collectio per se rara & nullibi nisi in Museo meo proprio tali forte inveniendas. Præter Vol. 3tium Floræ Britannicæ, nullum alium a Te hactenus recepi, neque ipse possideo. Quo primum cista ad Te perpenerit, optarem ut per litteras de adventu ejus certus fierem. — Si quid prius ad me mittitur, id certe accipio, si vel Gothenburgum transfertur a cura di Dni J. Equitis P. Dubb, aut di Dni Christ. Carlander ibidem commissitium — sive Norcopiam curæ Dni Dni J. mer. Reg. J. P. Westring vel alius Mercatoris ibidem — sive Karlskrona curæ Dni Prof. O. Swartz — Vale! mihique favea! —

Jahanar Museo Vadstenæ d. 8 Decembr. 1807

Fig. 10 Letter from Acharius to J. E. Smith. Smith Correspondence (1:26), Archives, Linnean Society of London.

In his letter to Turner, Swartz wrote:

> 'Acharius has now elaborated his *Lichenographia Universalis*, which is to be printed at Göttingen under inspection of Prof Schrader. About 2/3 parts were sent to Germany before our cursed war, and I suppose that they are printed long since. How soon the rest can get out, God in Heaven knows. About 20 plates will elucidate this work, a very laborious undertaking, which, I fancy you'll be pleased one time to peruse. With the above mentioned copies I'll send you a facsimile of the catalogue Acharius communicated with me long since upon the species contained and described. Though this list may in some measure have been altered before the completion of the Lichenographia, you'll still have a general view of the whole.' (Swartz, 1808*b*).

The box of lichens destined for the Linnean Society of London, having been unheard of either in London or Sweden for eight months, was eventually discovered in a warehouse at London Docks and on 23 November 1808 Thomas Marsham wrote to J. E. Smith:

> 'I have at length discovered that your box of dried Plants, Mosses and Lichens from Sweden, have lain in the Warehouse at the Custom House since September last, and I have been informed by a friend whose name I must not mention, that he thinks if you will write a letter to the Honourable Commissioners of the Customs stating that you are President of the Linnean Society and these are mere objects of Curiosity, they will order them to be delivered without duty, but if that is refused you must fix some value on them that the duty may be ascertained, when that is done if you will give me an order to receive them I will finish the business for you.' (Marsham, 1808).

On receipt of this letter Smith wrote immediately to the Secretary of the Linnean Society:

> 'I yesterday received the enclosed from Mr. Marsham. "The box of dried plants etc" is Acharius's collection of Lichens for the Linn'n Society of which I sent you long ago the bill of lading, and also the catalogue still longer ago. I have no other concern in it than as a member of the Society. Marsham seems not to have conferred with you, and thinks the box is mine. I presume you will easily get it, but if there be anything I can do pray let me know, and if I am to write to the Commissioners how am I to address them, and where? Are they "My Lords and Gentlemen"? Please to let me know as soon as you have got the box and I shall write directly to Dr. Acharius, who has long been in anxiety about the box, as I have. We ought now by the *very first* opportunity to send Dr. Acharius our Transactions as agreed.' (Smith, 1808).

Because of the war in Sweden, postal services between Britain and Sweden were irregular or non-existent and, by the end of 1808, Acharius had still not learned of the safe arrival of his lichens in London. In a letter to Dawson Turner he voiced his worries:

> 'Your very obliging letter on the 14th last November transmitted by the English Ambassador Mr Merry came safe to my hands yesterday evening. Nobody could with more warmth wish for advice from my English friends, amongst which you Sir and Dr Smith occupy the first place, than I, so much more as I now a long time since have not heard the least from you. I'm thus very glad to receive your assurance that I am remembered, although no letters are from me arrived, and no less so to hear that you pursue your litterat [sic] works in these present troublesome times, who, at least here are a great hinderance. Believe me Sir, it is not at all my fault that no letters from me are receiv'd during this time past; I have twice wrote to Dr Smith and therein sent my compliments to you with some trifling notices, but to my sorrow I received no answer. But what seems most extraordinary to me, is that I have heard nothing about the Chest of Lichens, which for 1½ years since I sent as a present to the Museum of the Linnean Society at London, containing no less than 1700 specimens of this family and directed to Dr Smith. I have however been informed that this chest is happily arriv'd to London several months ago. In the same was even inclos'd a great Packet with Lichens etc as well as a letter to my worthy friend Dawson Turner. Being in expectation of an answer from Dr Smith, I have since must be silent. Please to write to Dr Smith about this affair so that it may be put in order. I have even sent to Mr Smith the Bill of Lading of the Master of the Ship and direction of the place where this Chest was to be found.
>
> My humble thanks for the Botanical news. The war, in which our country is involved deprives us from every communication with other countries; we are however not quite isles. I wish that you Sir! and Mr Borrer may not publish your Lichenographia Britannica* before you have seen the

* This work, published by Turner & Borrer (1839) as 'Specimen of a Lichenographia Britannica; or, attempt at a history of the British Lichens', was begun in 1807 but not printed until 1839 (Dawson, 1961; Hawksworth & Seaward, 1978).

collection I sent to the Linnean Society and that to yourself, as well as that new great new work about Lichens which under the care of my friend Schrader has been this year in the press at Göttingen, but now probably at a stop, since I, by reason of the war have not been able to send the continuation of the manuscript. I hope however the first Tome in 4to with its Physiologisk and Anatomisk coloured Tables may already be printed. You'll find Sir, that I have therein ventur'd a new Method built upon a more sure Botanical Foundation than before, added a greater number of new Species (and among these all those you was pleased to send me) – and divided the Lichenes into 41 good and fixed Genera. I wish and hope that may meet with your approbation.

I have upon your advice call'd one of these genera *Borrera*. Please to give my best compliments to Mr Borrer and desire him to impart to me if he has any new or dubious. He shall not find me ungrateful. If by reason of your intended work you should wish to have my characters, essentials of the establish'd Genera, I will communicate them to you through our friend Mr Swartz, and Mr Merry with condition that the Publick not gets the least knowledge thereof before my above mention'd work about Lichenes is published by the press.' (Acharius, 1808).

On 7 March 1809 it was noted in the General Minutes of the Linnean Society that:

'. . . a collection of Lichens from Sweden, describ'd in the *Methodus Lichenum* were presented from Dr Acharius, F.M.L.S.' (Howe, 1912).

Two months later, Smith wrote to Swartz:

'I do confess myself to be *in act* and *in deed*, but not *in heart*, a most unworthy correspondent. What can I do but throw myself on your mercy? Happy that I can truly say you are often in my thoughts, and always in my highest esteem as I profit by your botanical labours and kind presents. In truth my health is not very strong, and what time and attention I can give to writing, is occupied by numerous works which I always have in hand. I hear of you by my friends and neighbours Turner and Hooker, two of the best men and best botanists. I have much wanted to send to you and other Swedish friends my *Introduction to Botany*, of which the 2nd edition is rapidly selling, but my booksellers have not yet found a means of forwarding it. Mr. Turner tells me he sent you a parcel last summer, but he gave me no notice of it. I hope he will have another opportunity this year. In this book, which is intended to render our favourite science easy and popular, I have moreover aimed at preserving the purity of Linnaean style and principles, I trust not so as to give offence to those I presume occasionally to dissent from. The nomenclature of Botany is becoming an Augean stable, especially in England. I am no Hercules, but I have just put in *my broom*. Dryander professedly disclaims all care about the matter, except to adopt the *first* name however *bad* it may be . . .

Pray tell the excellent Acharius (with my very kindest respects) that his collection of Lichens lay a year in that *gulph* our Custom-house. It is now safe in the Linnean Society's house. My first business when I go to London next week will be to procure him a set of our Transactions as a present from the Society – but when the books can be sent God knows!! . . .

Salisbury has printed a few copies of an abusive lying pamphlet against me, (after two printers had refused it!) in which he accuses me of *quarrelling with you*! He means Vahl, but he put Swartz for Vahl, because nobody here cares about the latter, and Salisbury knew that it would be disgraceful to me to quarrel with *you*. I answer him not – nor does anybody heed him because of his infamous character.' (Smith, 1809).

On 13 June 1809 the Council of the Linnean Society 'Order'd that a Cabinet be provided to contain the Collection of Lichens presented to the Society by Professor Acharius: but that no greater expence be incurr'd on this Account than Five Pounds' (Howe, 1912: 203). However, the exchange of the Society's *Transactions* which had been promised by Smith in 1804 and ordered by the Council of the Linnean Society lay in abeyance until a Council Minute of 17 November 1812 'Order'd that a copy of the Society's Transactions be presented to Dr. Acharius' (Howe, 1912: 203). Smith, embarrassed by the great delay in honouring the conditions of the exchange with Acharius, wrote in explanation to Swartz:

'I am extremely sorry that the Linnean Transactions have not been sent to Dr. Acharius. You know that for a long time while it was impossible – but as soon as the difficulties were removed, I requested our Secretary to lose no time – but he is a man high in office and has little leisure, though excellently disposed. I will finish this letter when I get to London, and will then speak with more precision. In the mean while I must beg of you to assure our excellent friend Acharius, that though public and private affairs may make me a bad correspondent, and my attention is much taken from the subject

in which he is *supreme*, I honour and admire him as much as ever. Do present my best regards to him and do not let him think I fail in attention or respect.' (Smith, 1813*a*).

Nine days later from London, Smith added to his letter to Swartz:

'I am sorry to find the set of the Linnean Society's Transactions is not yet sent to Dr. Acharius but I have given orders for it to be done directly, and will see it is done.' (Smith, 1831*b*).

In reply, Swartz wrote to Smith:

'Your compliments to my friend Acharius I dispatched instantly, and have the honour to send you his respects in return. He entreats me also to tell you that he has been anxiously expecting the *Acta Soc. Linn.* which have been obligingly promised to him. If this should be fulfilled, he gives the assurance to add to the former stock of the collection communicated to the Society, many novitiae or new species, spared since the expedition. He would, as he wishes me to say, be highly flattered by receiving as a member of the Linnean Society, the diploma and Certificate thereof. And he is publishing now a *Synopsis Methodica Lichenum*, he begs me to inform you about the same, and hopes that you will not finish that part of your flora, before you have seen the said work, which he thinks to be more compleat than the preceding. In a couple of months I suppose it may be done.' (Swartz, 1813*b*).

Acharius, anxious to tell both Smith and Turner of the impending publication of his *Synopsis* (Acharius, 1814), wrote to them both on 26 October 1813. To Smith he observed:

'I am being informed by Prof Swartz that the chest with Lichenes wich [sic] I sent to the Linnean Soc., is arrived and I received your compliments by the same friend. But I have not had the satisfaction to obtain any special news from yourself, having long awaited on the performance of the promise of the Society to accept its published Transactions, as well as the first and second Tome of your *Flora Britannica*. I have charged Prof Swartz to write to you of this as well as some other points, particularly that of obtaining the suite of the Transactions of the Society, in lieu of which I will complete its collections with the new discovered Lichenes.

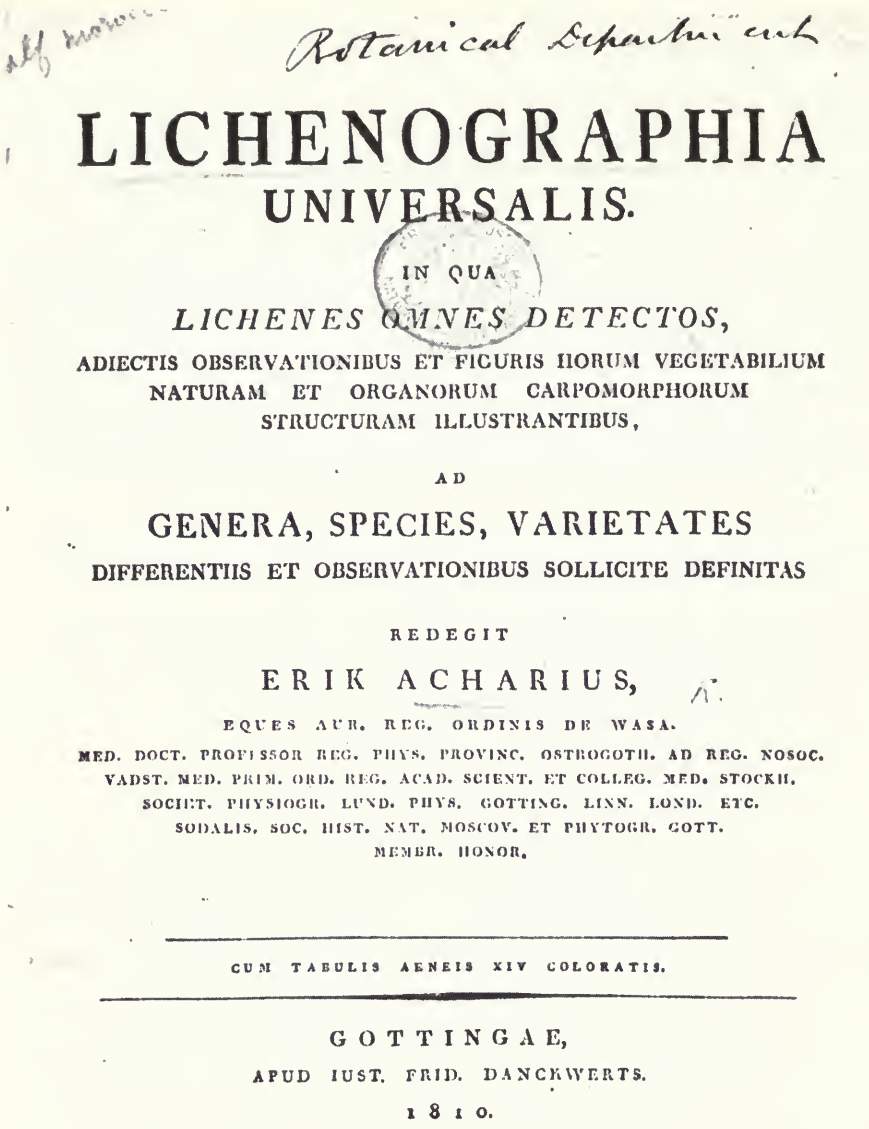
In order to make me remembered, I send you some new and very curious species of which a part is quite the only I possess, whom I wished that you would retain for yourself, or add to my former collection to the Society. I have chosen small species because I dare not send more voluminous things with a learned country man Mr Ekenstarm; who will himself give you this wishing that you would afford him acquaintance with men who he sekes [sic] to know in regard to his litterary [sic] and philological studies. If you will send some what new and rare to me he have promised me to take it with himself, for instance the book above mentioned – rare plants of all kinds etc etc . . .

I am glad to hear that you have seen my Lichenographia Universalis [Figs 11, 12, 13]. But I have made since, so many corrections, improvements and additions of new things (tam quoad characteres Generum, quam Species e varietates) so that I wished, that you did not imprint the 4th Tome of your Flora Brittanica ere You have seen my new work *Synopsis Methodica Lichenum*, who is going from the press this year; (forte intra faciens mensis Novembri) and wich [sic] I bilieve [sic] shall be your wellkome [sic]. I shall send it to You, when it is published.

P. S. Fere puratam habes Monographiam Novarum Generum: *Glyphis* e *Chiodecton* cum figuris coloratis speciorum detectarum quam ad Societ. Linn. Londiniensis mittere descrisea intentione ut in Actis Epidem. Societatis imperatur. Si cura amicie Swartz ad te Manuscriptis e Tabulare adscrivint fac ut figurae maxima una casa.' (Acharius, 1813*a*) (Fig. 14).

To Turner, Acharius wrote:

'When I sent, for some years ago, a chest with Lichenes to the Linnean Society in London, it was in the same chest a packet to you with Lichenes, Musci and letters. I suppose that you have got it by Dr Smith, though I have not had the pleasure of being informed of it by any letter from you. In order to make me remembered, I will use this occasion to send you, with a learned countryman, Mr Ekenstarm, who is now going to England, some new and very various Lichenes and this letter. If you can by this Gentleman to any servise [sic] by the persons, whos [sic] acquaintance he will acquire in respect to his litterary and Philological studies, I hope you will do it. He has promised me to transport to me, what news you have to send me. I suppose you have seen my work *Lichenographia Universalis*, but is have made, since this work was published many necessary improvements and added a considerable multitude of New Species from almost all the end of the world. In my *Synopsis Methodica Lichenum* who is to be published this year and whereof I shall send to you an Exemplar,



Botanical Department

LICHENOGRAPHIA
UNIVERSALIS.

IN QUA

LICHENES OMNES DETECTOS,

ADIECTIS OBSERVATIONIBUS ET FIGURIS HORUM VEGETABILIUM
NATURAM ET ORGANORUM CARPOMORPHORUM
STRUCTURAM ILLUSTRANTIBUS,

AD

GENERA, SPECIES, VARIETATES

DIFFERENTIIS ET OBSERVATIONIBUS SOLLICITE DEFINITAS

REDEGIT

ERIK ACHARIUS,

EQUES AUR. REG. ORDINIS DE WASA.
MED. DOCT. PROFESSOR REG. PHYS. PROVINC. OSTROGOTH. AD REG. NOSOC.
VADST. MED. PRIM. ORD. REG. ACAD. SCIENT. ET COLLEG. MED. STOCKH.
SOCIET. PHYSIOGR. LUND. PHYS. GOTTING. LINN. LOND. ETC.
SODALIS, SOC. HIST. NAT. MOSCOV. ET PHYTOGR. GOTT.
MEMBR. HONOR.

CUM TABULIS AENEIS XIV COLORATIS.

GOTTINGAE,
APUD IUST. FRID. DANCKWERTS.
1810.

Fig. 11 Title page of *Lichenographia universalis* (Acharius, 1810). Library, British Museum (Natural History).

> You may see how much I have been able to contribute to the completion of the Lichenologie. T'is in my opinion the most useful and complete of my works in that way.' (Acharius, 1813*b*).

With the advice on the publication of the *Synopsis* (Fig. 15) made known to Smith and Turner, the lichenologists in England who would have had most use for it, Acharius ended his correspondence with botanists in England although he continued to hear of botanical progress in England through his friend Swartz.

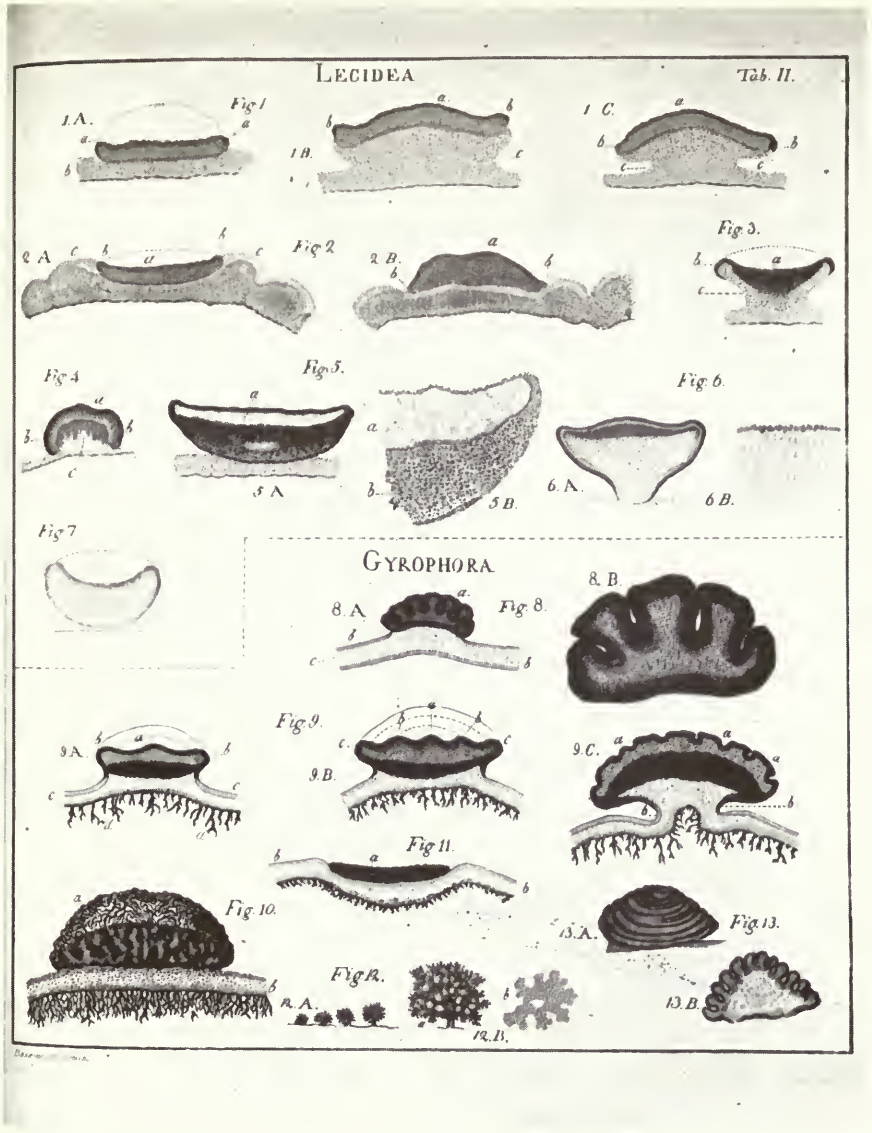


Fig. 12 Hand-coloured plate (II) from *Lichenographia universalis*. Library, British Museum (Natural History).

Swartz meanwhile, had also written to Nathaniel Winch of Newcastle in the same year, mentioning the new *Synopsis*:

> 'Mr Acharius's *Lichenographia* is a work of £4 value. If I can get it, I will contrive to send it, but this moment no copy is to be got here. A new *Synopsis* of Lichens (a compendium of the *Lichenographia*) is just printing and this I shall certainly be able to dispatch another season.' (Swartz, 1813*a*).

Turner, who had espoused Acharius's views most strongly, still received letters from Swartz from time to time, and in them lichens were always discussed. Swartz was keenly interested in the progress of Turner's *Lichenographia*. In 1816 Swartz observed to Turner:

> '. . . my friend Dr Acharius has pursued his old task, the Lichenologia, and his last opusculum is the *Synopsis*, which contains indeed multum in parvo. The very great addition he got not only from

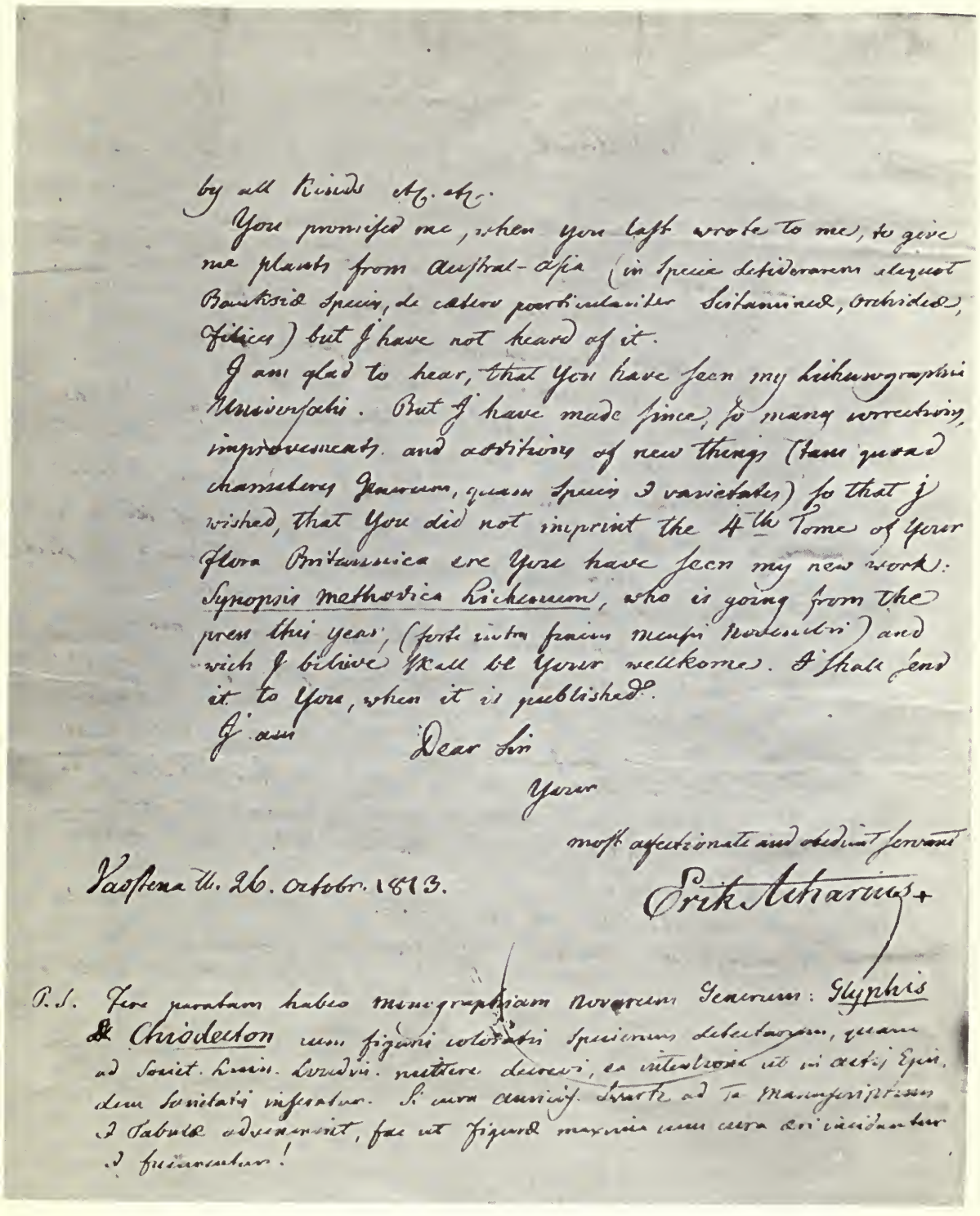
LECIDEA.
GENUS VI.
LECIDEA. ACH.
(a Λεκις, parva Scutella & Ειδος, forma).
Character Naturalis.
APOTH. Patellula sessilis et thallo adpressa vel superficialis, orbicularis vel per mutuam pressionem angulosa & difformis, duriuscula, substantia & plerumque colore thallo dissimillima; sæpius atra, sed etiam varie colorata.
Discus raro concavus, frequenter planiusculus vel per ætatem convexus, crusta subspongiosa opere cellulari sporis repleto fabricata tectus, supra nudus vel pruinosus.
Margo (proprius) crassiusculus obtusus integer persistens, colore utplurimum di-
sci;
LECIDEÆ Genus a Parmeliæ optime distinctum, licet habitu & forma Thalli atque etiam Apotheciorum in multis conveniant utraque hæcce Genera. Tantum vero inter se differunt, quantum Patellulæ a Scutellis discedant. — In Lecideis variis pariter atque in quibusdam Urceolariis margo apotheciorum accessorius occurrit, a crusta quidem formatus sed neutiquam partem eorum efficiens, & ideo spurius a me dictus. Ex. gr. Lecidea hæmatomma, aliæque species patellulis subimmersis.
Obs. Lichen atratus, Lich. Prodr. p. 62., Fungis potius adnumeratur. (Est enim Peziza Lichenoides PERSOON. Synops. Fung.).
5. Lecidea ἀλεκις parva Scutella & ειδος Forma.
Apothecium orbiculatum sessile, Membrana colorata tectum; aequabili marginato disco; intus similari.
Thallus varius crustaceus uniformis vel effiguratus, foliaceus & stipitatus.

Fig. 13 The Rev. John Harriman's version of Plate II from *Lichenographia universalis*, in his annotated copy of *Methodus*. Library, Linnean Society of London.

abroad, but also within the limits of native shores, are very considerable. He will certainly be very glad at the news of his *Synopsis* having reached you.' (Swartz, 1816).

In 1818, six months before his death, Swartz wrote his last letter to Turner:

'Having just an opportunity of sending some litterary articles to London, I take one liberty to wait upon you with the enclosed containing several of the Lichenological Memoirs of my friend Acharius, which have been at different times inserted in the Acta Academiae R. scientiarum. And as I am



by all Friends &c. &c.

You promised me, when You last wrote to me, to give me plants from Austral-Asia (in Specia desideravem aliquot Banksiæ Species, de cæteris penitus Scitamineæ, Orchideæ, Filices) but I have not heard of it.

I am glad to hear, that You have seen my Lichenographia Universalis. But I have made since, so many corrections, improvements and additions of new things (tam quoad characteres Genuum, quam Species & varietates) so that I wished, that You did not imprint the 4th Tome of Your Flora Britannica ere You have seen my new work: Synopsis methodica Lichenum, who is going from the press this year, (forte intra festum nativitatis Redemptoris) and wich I bilive Will be Your welcome. I shall send it to You, when it is published.

I am Dear Sir

Your

most affectionate and obedient Servant

Vadstena d. 26. Octobr. 1813. Erik Acharius +

P.S. Jam paratam habeo Monographiam novarum Genuum: Glyphis & Chiodecton cum figuris coloratis Specierum delectarum, quam ad Societ. Linn. Londin. mittere decrevi, ea intentione ut in actis Ejus. dem Societatis inseratur. Si vero denuo Schaeffer ad te transmiserit Tabulas adumbratas, fac ut figuræ maximi cum cura delineantur & pingantur!

Fig. 14 Part of text of letter from Acharius to J. E. Smith. Smith Correspondence (1:27), Archives, Linnean Society of London.

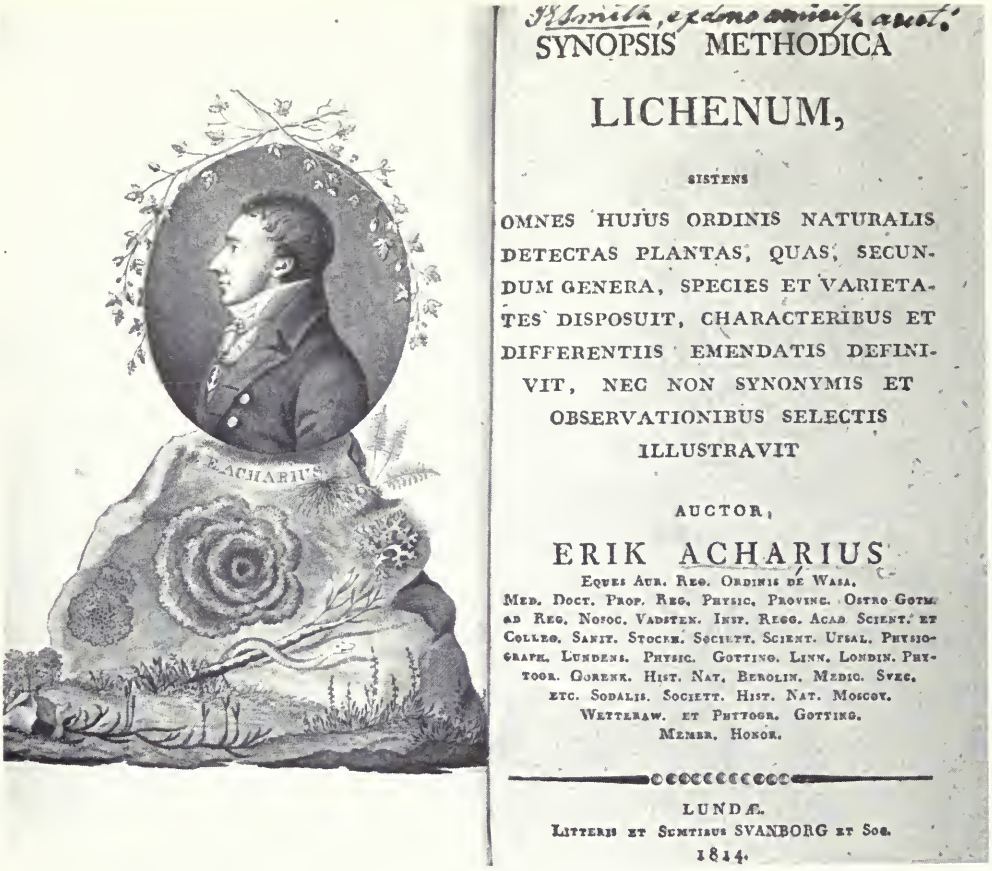

J. E. Smith, ex dono amici & auct.
SYNOPSIS METHODICA
LICHENUM,
SISTENS
OMNES HUJUS ORDINIS NATURALIS DETECTAS PLANTAS, QUAS, SECUNDUM GENERA, SPECIES ET VARIETATES DISPOSUIT, CHARACTERIBUS ET DIFFERENTIIS EMENDATIS DEFINIVIT, NEC NON SYNONYMIS ET OBSERVATIONIBUS SELECTIS ILLUSTRAVIT
AUCTOR,
ERIK ACHARIUS
EQUES AUR. REG. ORDINIS DE WASA, MED. DOCT. PROF. REG. PHYSIC. PROVINC. OSTRO GOTH. AD REG. NOSOC. VADSTEN. INSP. REGG. ACAD. SCIENT. ET COLLEG. SANIT. STOCKH. SOCIETT. SCIENT. UPSAL. PHYSIOGRAPH. LUNDENS. PHYSIC. GOTTING. LINN. LONDIN. PHYTOGR. GORENK. HIST. NAT. BEROLIN. MEDIC. SVEC. ETC. SODALIS. SOCIETT. HIST. NAT. MOSCOV. WETTERAW. ET PHYTOGR. GOTTING. MEMBR. HONOR.
LUNDÆ.
LITTERIS ET SUMTIBUS SVANBORG ET SOC.
1814.

Fig. 15 Title page of *Synopsis methodica lichenum* (Acharius, 1814). J. E. Smith's copy. Library, Linnean Society of London.

> informed that you have been or still elaborating on a Lichenologia Britannica I suppose the annexed may deserve your attention, and their perusal explain some points of the intricate tribe in question.' (Swartz, 1818).

One month before his death in September 1818, Swartz wrote to W. J. Hooker:

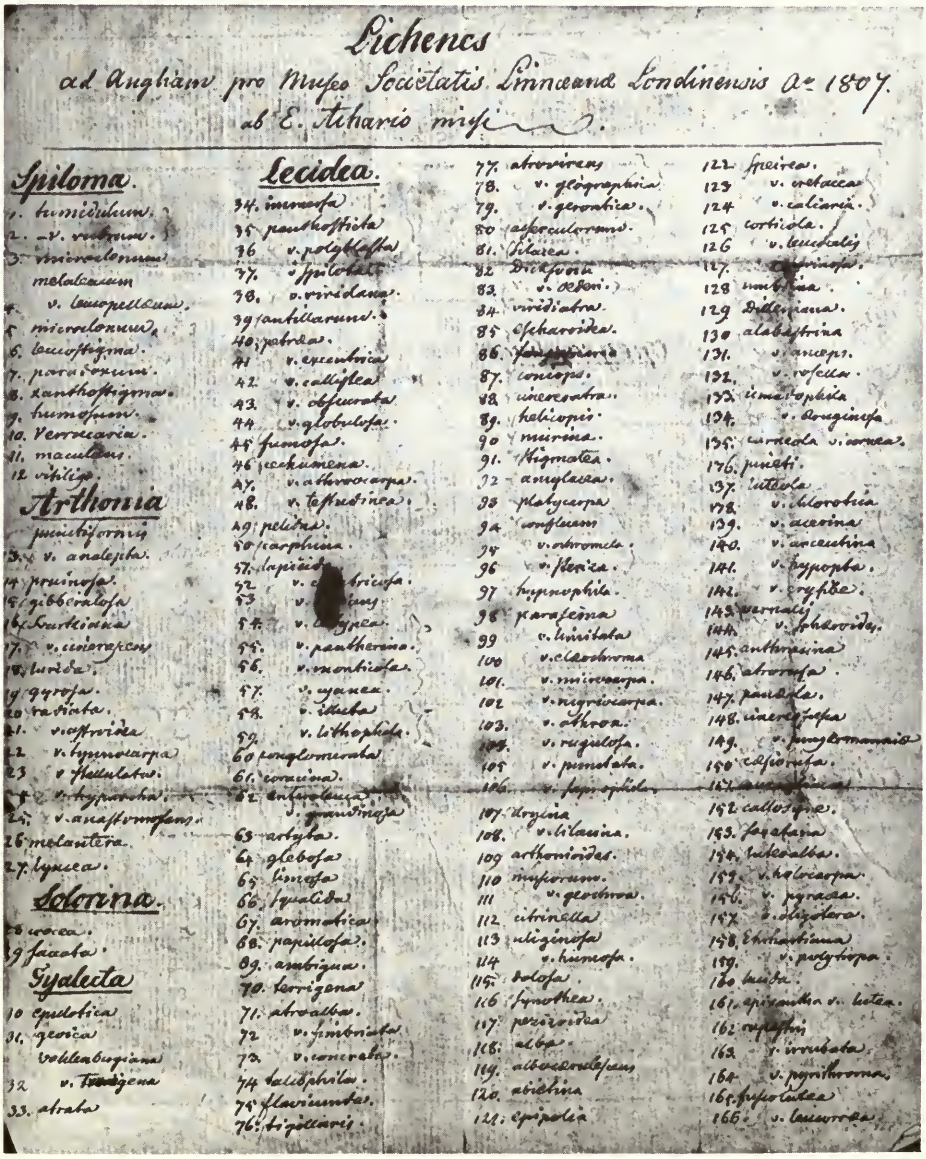
> 'How goes it with the *Lichenographia* of Messrs Turner and Borrer, (quoted frequently in *Engl. Bot.* as in manuscript?) I suppose nothing is published yet, as I have not seen it announced anywhere. The tracts of M. Acharius which I send you upon the *Calicioidea** may perhaps be of some service for extricating doubtful points on this tribe of the *Lichen* family.' (Hooker, 1840).

Although the Linnean Society later published Acharius's account of the new lichen genera *Glyphis* and *Chiodecton* (Acharius, 1818), it was in his earlier works and in his encouragement and example to Smith and Turner where his impact on lichen taxonomy was most strongly felt. This influence later affected the rising generation of English lichenologists (Hooker, 1821, 1833; Gray, 1821; Greville, 1824, 1826; Taylor, 1836; Leighton, 1851, 1854, 1856; Lindsay, 1856; Mudd, 1861). Through the fine collection now in the herbarium of the British Museum (Natural History) the concepts of Acharius still have considerable relevance to contemporary studies in lichen taxonomy (e.g. Tibell, 1978, 1987).

* Acharius (1815, 1816, 1817); see also Tibell (1987).

The Acharius lichens in the British Museum (Natural History) (BM-ACH)

The collection of lichens sent to London by Acharius as a gift to the Linnean Society of London was neglected for many years, the specimens attached to their cards being kept loose in drawers in a cabinet. In April 1961 the collection was removed to the herbarium of the British Museum (Natural History) by Mr P. W. James, Mr J. R. Laundon (BM), and Dr R. Santesson (University of Uppsala). In 1962–63 Mr J. R. Laundon curated the collection into its present state, a painstaking task of which he later noted 'the specimens were on their present cards, which were kept loose in drawers and which were so black with dirt that one had great difficulty in reading the names on many of the specimens. It took me several months work just to remove this dirt from the labels and material . . .' (J. R. Laundon, *pers. comm.*) The Acharius lichens were purchased from the Linnean Society of London by the British Museum (Natural History)


Lichenes
ad Angliam pro Musco Societatis Linnaeanae Londinensis a. 1807.
ab E. Achario missi.

Spiloma.
1. tumidulum.
2. v. rubrum.
3. microleucum
melaleucum
4. v. leucopellaeum.
5. microleucum.
6. leucostigma.
7. parasemum.
8. xanthostigma.
9. tumefactum.
10. Verrucaria.
11. maculare.
12. obtusa.

Arthonia
punctiformis
2. v. analepta.
3. v. analepta.
4. pruinosa.
5. gibbosa
6. Swartziana
7. v. cinereopruinosa
8. lurida.
9. gyrosa.
10. radiata.
11. v. affinis
12. v. lapidicola
13. v. stellulata.
14. v. hypnorum.
15. v. anastomosans.
16. melanteria.
17. lyncea.

Solorina.
18. crocea.
19. saccata.

Gyalecta
10. cupularis
11. geoica
Vahlenbergiana
12. v. Trentepohlia
13. strata

Lecidea.
34. immersa
35. panthostricta
36. v. polychlora
37. v. spilotea
38. v. viridans.
39. antillarum.
40. fabrea.
41. v. excentrica
42. v. calligera
43. v. obscurata
44. v. globulosa.
45. fumosa.
46. cechumena.
47. v. athroocarpa.
48. v. testudinea.
49. pelina.
50. carphina.
51. lapicida
52. v. [illegible]
53. v. [illegible]
54. v. [illegible]
55. v. pantherina.
56. v. exanthisa.
57. v. uvacea.
58. v. idaea
59. v. lithophila.
60 conglomerata
61. concinna.
62. enteroleuca
v. granulosa
63. arbuta.
64. globosa
65. limosa
66. squalida
67. aromatica
68. papillosa.
69. ambigua.
70. terrigena
71. atroalba.
72. v. fimbriata
73. v. concreta.
74. subfibrilla.
75. flaviunda.
76. trigonella.

77. atrovirens
78. v. geographica.
79. v. geronthica.
80 speculorum.
81. silacea.
82. Dicksonii
83. v. Acharii.
84. viridiatra.
85. Scharoides.
86. [illegible]
87. concreta.
88. incrustata.
89. helicopis.
90 muriana.
91. stigmatea.
92. amylacea.
93. platycarpa
94. confluens
95. v. atromarginata.
96. v. flavicans.
97. hypnophila.
98. parasema
99. v. limitata
100 v. cleochroma
101. v. minicarpa.
102. v. nigricarpa.
103. v. athroa.
104. v. rugulosa.
105. v. punctata.
106. v. hypophila
107. strigina
108. v. silacina.
109 arthonioides.
110 muscorum.
111. v. geochroa.
112. citrinella
113. uliginosa
114. v. humosa.
115. soluta.
116. synothea.
117. porinoides
118. alba.
119. albocaerulescens
120. abietina
121. epipolia

122. fuscirea.
123. v. violacea
124. v. caliciaria.
125. corticola.
126. v. leucolaly
127. [illegible]
128. umbrina.
129. Dillenii.
130. alabastrina
131. v. aeneps.
132. v. roscella.
133. cinnabarina
134. v. sanguinea
135. cornea v. cornea.
136. punctii.
137. lutella
138. v. chlorotica
139. v. arcerina
140. v. arcuatina
141. v. hypopta.
142. v. cryptae.
143. parmatii
144. v. sphaeroides.
145. anthracina
146. atrorufa.
147. parasema.
148. sinopica
149. v. pungitopii
150 effusa.
151. [illegible]
152. callopisma.
153. fagicola
154. subcaesia.
155. v. halocarpa.
156. v. pyracea.
157. v. oligotropa.
158. Ehrhartiana
159. v. polytropa.
160 lurida.
161. epixantha v. lutea.
162 cupreoatra
163. v. irrubata.
164. v. pyrithroma.
165. pyrrhotrea
166. v. laureatea

Fig. 16 Title page of Acharius's handwritten catalogue of lichens, now in the Herbarium, Lichen Section, British Museum (Natural History).

Fig. 17 *Borrera trulla* [= *Everniopsis trulla* (Ach.) Nyl.] and *Nephroma polaris* [= *Nephroma arctica* (L.) Torss.] in the Acharius collection, British Museum (Natural History), showing names used by Acharius in *Lichenographia universalis*, and in *Methodus*.

in January 1963 (with a collection of cryptogamic books and specimens), for a sum of £250.00, and have now a permanent place in the cryptogamic herbarium.

The lichen collection in BM-ACH illustrates Acharius's taxonomic arrangement used in the *Lichenographia Universalis*, with names from the earlier *Methodus* in parenthesis or scored out (Hawskworth, 1977: Fig. 3). Acharius's catalogue (Fig. 16) of the collection entitled 'Lichenes: ad Angliam pro Museo Societatis Linnaeanae Londinensis A° 1807 ab E. Achario missi' comprises 894 specimens in 41 genera arranged as follows: *Spiloma* 1–12; *Arthonia* 13–27; *Solorina* 28–29; *Gyalecta* 30–33; *Lecidea* 34–177; *Gyrophora* 178–194; *Calicium* 195–220; *Opegrapha* 221–261; *Graphis* 262–275; *Biatora* 276; *Verrucaria* 277–322; *Endocarpon* 323–335; *Trypethelium* 336; *Porina* 337–340; *Thelotrema* 341–343; *Pyrenula* 344–347; *Variolaria* 348–359; *Sagedia* 360–363; *Urceolaria* 364–384; *Lecanora* 385–551; *Roccella* 552–553; *Evernia*

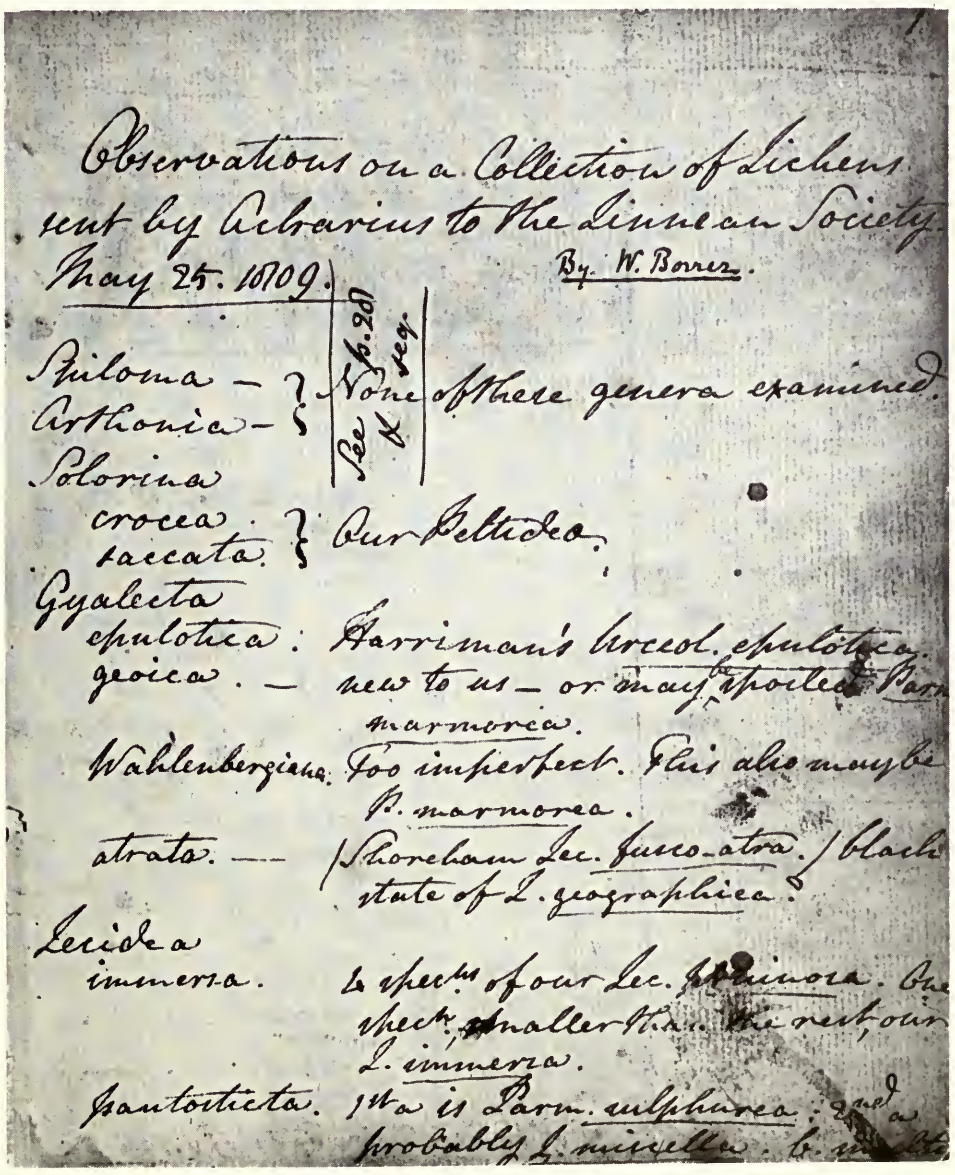

Observations on a Collection of Lichens
sent by Acharius to the Linnean Society.
May 25. 1809.
By. W. Borrer.
Spiloma — ?
Arthonia — ?
None of these genera examined.
See 26.201 & seq.
Solorina
crocea
saccata
} Our Peltidea.
Gyalecta
cupularis: Harriman's Urceol. cupularis.
geoica. — new to us — or may be spoiled Parm. marmorea.
Wahlenbergiana. Too imperfect. This also may be P. marmorea.
atrata. — Shoreham Lec. fusco-atra. / black state of L. geographica?
Lecidea
immersa. 4 specimens of our Lec. immersa. One sheet smaller than the rest, our L. immersa.
Isantoleuca. This is Parm. sulphurea: and probably L. nivella. b.

Fig. 18 Specimen of William Borrer's observations on the Acharius lichens. Herbarium, Lichen Section, British Museum (Natural History).

554–560; *Sticta* 561–567; *Parmelia* 568–624; *Borrera* 625–641; *Cetraria* 642–651; *Peltidea* 652–665; *Nephroma* 666–669; *Dufourea* 670–672; *Cenomyce* 673–756; *Baeomyces* 757–760; *Isidium* 761–767; *Stereocaulon* 768–773; *Sphaerophoron* 774–775; *Rhizomorpha* 776–777; *Alectoria* 778–788; *Ramalina* 789–811; *Cornicularia* 812–825; *Usnea* 826–839; *Collema* 840–883; *Lepraria* 884–894.

The lichens are attached to water-marked paper glued on to card, 11–12 × 7–8 cm and are named in ink by Acharius (Fig. 17). They are housed in packets mounted on herbarium sheets and enclosed in folders in the order stated in Acharius's catalogue. Tibell (1987: 258) has recently commented on the BM-ACH collection as follows '. . . specimens seem first to have been annotated according to Methodus Lichenum, and when the annotations were revised "mscr." (manuscript) and "Lichenogr. universal." were added. The "mscr." has been crossed out, possibly by Acharius himself after finishing the Methodus and Lichenographia universalis manuscripts. The drawback of the BM-ACH material is that no information on collectors or localities is supplied with the specimens. Its importance arises from the fact that this was probably part of the material Acharius was working with when he wrote the "Methodus" and "Lichenographia".' This view was stated by Swartz in letters to Turner (see p. 168 above) when he wrote that Acharius had spent a year preparing a named set of lichens '. . . which will be the truest and surest guide to his *Methodus*' (Swartz, 1806*c*).

William Borrer (1781–1862) saw the Acharius lichens shortly after their arrival at the Linnean Society, examined them carefully and prepared manuscript comments on them dated 25 May 1809 and 22 November 1811 (Fig. 18). These comments are maintained with the Acharius catalogue in BM-ACH.

J. R. Laundon (BM) has prepared a detailed list of the BM-ACH collection including several additional taxa not included in the Acharius holograph catalogue. The full BM-ACH holding is shown in Table 1.

Table 1 Arrangement of lichens in BM-ACH.

Spiloma

1. *tumidulum*
2. v. *rubrum*
3. *melaleucum*
4. v. *leucopellaeum*
5. *microclonum*
6. *leucostigma*
7. *paradoxum*
8. *xanthostigma*
9. *humosum*
10. *Verrucaria*
11. *maculans* var. *substellatum*
12. *vitiligo*
— *versicolor* var. *variolosum*

Arthonia

12a. *punctiformis*
13. v. *olivacea*
14. *pruinosa*
15. *gibberulosa*
16. *Swartziana*
17. v. *cinerascens*
18. *lurida*
19. *gyrosa*
20. *radiata*
21. v. *astroidea*
22. v. *tynnocarpa*
23. v. *stellulatus*
24. v. *hyparcha*
25. v. *anastomosans*
26. *melantera*
27. *lyncea*

Solorina

28. *crocea*
29. *saccata*

Gyalecta

30. *epulotica*
31. *geoica*
31a. *Wahlenbergiana*
32. v. *truncigena*
33. *atrata*

Lecidea

34. *immersa*
35. *pantosticta*
36. v. *polyblasta*
37. v. *spilota*
38. v. *viridana*
39. *antillarum*
40. *petraea*
41. v. *excentrica*
42. v. *callistea*
43. v. *obscurata*
44. v. *globulata*

Table 1 – *cont.*

45. *fumosa*
46. *cechumena*
47. v. *athroocarpa*
48. v. *testudinea*
49. *pelidna*
50. *carphina*
51. *lapicida*
52. v. *cicatricosa*
53. v. *radians*
54. v. *latypea*
55. v. *pantherina*
56. v. *monticola*
57. v. *cyanea*
58. v. *illuta*
59. v. *lithophila*
60. *conglomerata*
61. *coracina*
62. *enteroleuca*
62a. v. *grandinosa*
63. *artyta*
64. *glebosa*
65. *limosa*
66. *squalida*
67. *aromatica*
68. *papillosa*
69. *ambigua*
70. *terrigena*
71. *atroalba*
72. v. *fimbriata*
73. v. *concreta*
74. *talcophila*
75. *flavicunda*
76. *tigillaris*
77. *atrovirens*
78. v. *geographica*
79. v. *gerontica*
80. *asserculorum*
81. *silacea*
82. *Dicksonii*
83. v. *oederi*
84. *viridiatra*
85. *escharoidea*
86. *sanguinaria*
87. *coniops* [& v. *aequata*]
88. *cinereoatra*
89. *helicopis*
90. *murina*
91. *stigmatea*
92. *amylacea*
93. *platycarpa*
94. *confluens*
95. v. *ochromela*
96. v. *steriza*
97. *hypnophila*
98. *parasema*
99. v. *limitata*
100. v. *elaeochroma*
101. v. *microcarpa*
102. v. *myriocarpa* (incl. *L. pinicola*)
103. v. *athroa*
104. v. *rugulosa*
105. v. *punctata*
106. v. *saprophila*
107. *dryina*
108. v. *lilacina*
109. *arthonioides*
110. *muscorum*
111. v. *geochroa*
112. *citrinella*
113. *uliginosa*
114. v. *humosa*
115. *dolosa*
— v. *roburnea*
116. *synothea*
117. *pezizoidea*
118. *alba*
119. *albocaerulescens*
120. *abietina*
121. *epipolia*
122. *speirea*
123. v. *cretacea*
124. v. *calcaria*
125. *corticola*
126. v. *leucocelis*
127. v. *farinosa*
128. *umbrina*
129. *Dilleniana*
130. *alabastrina*
131. v. *anceps*
132. v. *rosella*
133. *icmadophila*
134. v. *aeruginosa*
— v. *elveloides*
135. *carneola* v. *cornea*
136. *pineti*
137. *luteola*
138. v. *chlorotica*
139. v. *acerina*
140. v. *arceutina*
141. v. *hypopta*
142. v. *erysibe*
143. *vernalis*
144. v. *sphaeroides*
145. *anthracina*
146. *atrorufa*
147. *panaeola*
148. *cinereofusca*
149. v. *jungermanniae*
150. *caesiorufa*
151. *aurantiaca*
152. *callosyne*
153. *saxetana*
154. *luteoalba*
155. v. *holocarpa*
156. v. *pyracea*
157. v. *oligotera*

Table 1 – *cont.*

158. *Ehrhartiana*
159. v. *polytropa*
160. *lucida*
161. *epixantha* v. *lutea*
162. *rupestris*
163. v. *irrubata*
164. v. *pyrithroma*
165. *fuscolutea*
166. v. *leucoraea*
167. *icmalea*
168. *lurida*
169. *scalaris*
170. v. *myrmecina*
171. *vesicularis*
172. *candida*
173. *thriptophylla*
174. v. *corallinoides*
175. *globifera*
176. *paradoxa*
177. *canescens*
— *daphoena*
177a. *heteroidea*
178. v. *glabra*
179. v. *polyphylla*
180. v. *anthracina*
181. v. *corrugata*
182. v. *cinerascens*
183. v. *variegata*
184. *pellita*
185. v. *luxurians*
186. *hirsuta*
187. *deusta*
— v. *brotera* & v. *flocculosa*
188. *erosa*
189. *hyperborea*
190. *proboscidea*
191. v. *exasperata*
192. *spadochroa*
193. *murina*
194. *pustulata*

Calicium

195. *strigonellum*
196. *cembrinum*
197. *tympanellum*
198. *corynellum*
199. v. *paroicum*
200. *turbinatum*
201. *saepiculare*
202. *claviculare*
203. v. *sphaerocephalum*
204. v. *pusillum*
205. *trachelinum*
206. *hyperellum*
207. v. *lygodes*
208. v. *roscidum*
209. *chrysocephalum*
210. v. *chlorellum*
211. v. *filare*
212. *cantherellum*
213. v. *peronellum*
214. *ventricosum*
215. *capitellatum*
216. *aciculare*
217. *gracilentum*
218. *trichiale*
219. v. *epidryon*
220. v. *stemoneum*

Opegrapha

220a. *verrucarioides*
221. v. *hypolepta*
222. v. *marmorata*
223. *nimbosa*
224. v. *subobliterata*
225. *Persoonii*
226. v. *aporea*
227. *lithyrga*
228. v. *confluens*
229. *macularis*
230. v. *faginea*
231. v. *conglomerata*
232. *herpetica*
233. *rubella* v. *aenea*
234. v. *viridis*
235. *rubella* v. *decolorata*
236. *fuliginosa*
237. *vulgata*
238. *siderella*
239. v. *rufescens*
240. *denigrata*
241. v. *meliana*
242. v. *atra*
243. *stenocarpa*
244. v. *hapalea*
245. *vulvella*
246. v. *anachaena*
247. *notha*
248. *caesia*
249. v. *amylacea*
250. *diaphora*
251. v. *spurcata*
252. v. *spaniota*
253. *parallela*
254. *signata*
255. *pedonta*
256. v. *sychnotea*
257. *rimalis*
258. v. *fuscata*
259. *epipasta*
260. *abnormis* v. *varia*
261. *phaea* v. *brunna*

Graphis

262. *lineola*
263. *caribaea*

Table 1 – *cont.*

264. *dendritica*
265. *cerasi*
265a. *pulverulenta*
266. v. *fraxinea*
267. v. *grammica*
268. v. *microcarpa*
269. v. *flexuosa*
269a. *scripta*
270. v. *varia*
271. v. *hebraica*
272. *serpentina*
273. v. *acerina*
274. v. *spathea*
275. v. *eutypa*

Biatora

276. *turgida*

Verrucaria

277. *nitida*
278. *punctiformis*
279. v. *ptelaeodes*
280. *cerasi*
281. *epidermidis*
282. v. *albissima*
283. *gemmata*
284. *stigmatella*
285. v. *micans*
286. v. *tremulae*
287. v. *lactea*
288. *carpinea*
289. *rhyponta*
290. *mucosa*
291. *chlorotica*
292. *aractina*
293. *aethiobola*
294. *umbrina*
295. v. *nigrescens*
296. *maura*
297. *clopima*
298. *pyrenophora*
299. *Schraderi*
300. *muralis*
301. *ceuthocarpa*
302. *striatula*
303. v. *acrotella*
304. *lignyota*
305. *trachona*
306. *epipolaea*
307. *leucocephala*
308. v. *amphibola*
309. *farrea*
310. *byssacea*
311. v. *stictica*
312. v. *minutissima*
313. *epigea*
314. *pulla*
315. *polythecia*
316. *papillosa*
317. *pusilla*
318. *gelatinosa*
319. *rubens*
320. *laevata*
320a. *fuscella*
321. v. *viridula*
322. v. *obscura*
— *hymnothora*
— *tropica*

Endocarpon

323. *sinopicum*
324. *tephroides*
325. *squamulosum*
326. *lachneum*
327. *hepaticum*
328. v. *lacinulatum*
329. *euplocum*
330. *leptophyllum*
331. *miniatum*
332. *complicatum*
333. *turgidum*
334. *pallidum*
335. *Weberi*

Trypethelium

336. *Sprengelii*

Porina

337. *lejoplaca*
338. v. *hymenea*
339. *pertusa*
340. *chionea*

Thelotrema

341. *lepadinum*
342. v. *scutelliforme*
343. *exanthematicum*

Pyrenula

344. *verrucosa*
345. *hiascens*
346. *microciba*
347. *gibbosa*

Variolaria

348. *lactea*
348a. *communis*
349. v. *faginea*
350. v. *alnea*
351. v. *pinea*
352. v. *leucaspis*
353. v. *orbiculata*
353a. *amara*
354. v. *discoidea*
355. v. *fraxinea*
356. *aspergilla*

Table 1 – *cont.*

357. v. *coniza*
358. *tenella*
359. *corallina* & v. *oreina*

Sagedia

360. *laevata*
361. *protuberans*
362. *rufescens*
363. *verrucarioides*

Urceolaria

364. *Acharii*
364a. *ocellata*
365. v. *ocellulata*
366. *diamarta*
367. *Hoffmanni*
368. v. *contorta*
369. *gibbosa*
370. v. *fimbriata*
371. v. *amphibola*
372. *panyrga*
373. *mutabilis*
374. *cinerea*
375. v. *tigrina*
376. v. *polygonia*
377. v. *tessulata*
378. v. *notata*
379. *scruposa*
380. *bryophila*
381. *diacapsis*
382. *calcaria*
383. *hypoleuca*
384. *Schleicheri*

Lecanora

385. *atra*
386. v. *expansa*
387. v. *confragosa*
388. v. *accumulata*
389. v. *calliginosa*
390. v. *grumosa*
391. *argopholis*
392. *lainea*
393. *ostracoderma*
393a. *multipuncta*
394. v. *rimulosa*
395. v. *cinerosa*
396. *coarctata*
397. v. *listrota*
398. v. *cotaria*
399. v. *inquinata*
400. *leucopis*
401. *verrucosa*
402. v. *agelaea*
403. v. *argena*
404. *fuscoatra*
405. *peridea*
406. v. *pinicola*
407. v. *exigua*
408. *sophodes*
409. v. *archaea*
410. v. *pyrina*
410a. *glaucoma*
411. v. *contaminata*
412. v. *eiphorea*
413. v. *leptoploea*
414. v. *varians*
415. *Ceratoniae*
416. *Swartzii*
417. *angulosa* v. *leptyrea*
418. v. *indurata*
419. *chondrotypa*
420. *Hageni*
421. v. *syringea*
432. v. *umbrina*
423. *epibryon* v. *pachnea*
424. *subcarnea*
— v. *ochroidea*
425. *milvina*
426. v. *privigna*
427. *albella*
428. v. *sordidescens*
429. *livida*
430. *parella*
431. v. *pallescens*
432. v. *upsaliensis*
433. v. *tumidula*
434. *tartarea*
435. v. *frigida*
436. *elatina*
437. *haematomma*
438. v. *coccinea*
439. v. *porphyria*
440. *rubra*
441. *cinnabarina*
441a. *subfusca*
442. v. *argentata*
443. v. *coilocarpa*
444. v. *horiza*
445. v. *allophana*
446. v. *rufa*
447. v. *atrynea*
448. v. *glabrata*
449. *aipospila*
450. *venosa* v. *cruenta*
451. v. *lepadolemma*
452. *sulphurea*
453. v. *leucogaea*
454. *distans*
455. *spodophaea*
456. *scrupulosa* v. *melioica*
457. *poliophaea*
458. *granulosa*
459. v. *aporetica*
460. *griseoatra*
461. *coenosa*

Table 1 – *cont.*

462. *commutata*
463. *rubricosa*
464. *prosecha*
465. *graphica*
466. *anomala*
467. v. *cooperta*
468. v. *tenebricosa*
469. v. *cyrtella*
470. v. *ochrostoma*
471. v. *hostelea*
472. v. *ferruginosa*
473. *varia*
474. v. *pleorytis*
475. v. *ravida*
476. v. *symmicta*
477. v. *pinara*
478. v. *apochroea*
479. v. *illusoria*
480. *intricata*
481. v. *erythrella*
482. *citrina*
483. v. *xanthostigma*
484. *salicina*
485. v. *microthelia*
486. *cerina*
487. v. *chrysaspis*
488. v. *gilva*
489. *vitellina*
490. v. *aurella*
491. v. *coruscans*
492. v. *steropea*
493. *craspedia*
494. *inalpina*
495. *epanora*
496. *effusa*
497. *expallens*
498. *orosthea*
499. *psoralis*
500. *carneolutea*
501. *rubelliana*
502. *minutula*
503. *falsaria*
504. v. *decussata*
505. v. *rivulosa*
506. v. *cyathoides*
507. *badia*
508. v. *fuscata*
509. *halophaea*
510. v. *aphoriza*
511. *decipiens*
512. *glaucocarpa*
513. *crassa*
514. v. *melaloma*
514a. *rubina*
515. v. *liparia*
516. *cartilaginea*
517. *candelaria*
518. v. *polycarpa*
519. v. *lychnea*
520. *hypnorum*
521. *lepidora*
522. *brunnea*
523. v. *nebulosa*
523a. *chrysoleuca*
524. v. *opaca*
525. *rutilans*
526. *epigea*
527. *galactina*
528. v. *dispersa*
529. *circinata*
530. *myrrhina*
531. v. *pinacion*
532. *alphoplaca*
533. v. *inflata*
534. *molybdina*
525. v. *microcyclos*
536. *saxicola*
537. *diffracta*
538. *straminea*
539. v. *oreina*
540. *elegans*
541. v. *tegularis*
542. *miniata*
543. v. *obliterata*
544. *murorum*
545. *callopisma*
546. *chlorophana*
547. *fulgens*
548. v. *bracteata*
549. *microphylla*
550. *melanaspis*
551. *elaeina*

Roccella

552. *tinctoria*
553. v. *hypomeca*

Evernia

554. *divaricata*
555. *vulpina*
556. *prunastri*
557. v. *stictocera*
558. v. *phellina*
559. v. *retusa*
560. v. *soredifera*

Sticta

561. *damaecornis*
562. *tomentosa*
563. *dissecta*
564. *sylvatica*
565. *pulmonaria*
566. v. *pleurocarpa*
567. *scrobiculata*

Table 1 – *cont.*

Parmelia

568. *caesia*
569. v. *dubia*
570. *recurva*
571. *virella*
572. *encausta*
573. v. *textilis*
574. v. *candefacta*
575. *aquila*
576. v. *stippaea*
577. *stygia*
578. *fahlunensis*
579. *sciastra*
580. *omphalodes*
581. v. *panniformis*
582. *saxatilis*
583. v. *rosaeformis*
584. *centrifuga*
585. *ambigua*
586. *aureola*
587. *cycloselis*
588. v. *lithotea*
589. *ulothrix*
590. *stellaris*
591. *aipolia*
592. v. *anthelina*
593. v. *acrita*
594. v. *cercidia*
595. *pulverulenta*
596. v. *angustata*
597. *venusta* v. *hybrida*
598. *aleurites*
599. v. *diffusa*
600. *muscigena*
601. v. *lenta*
602. *rubiginosa*
603. *lanuginosa*
604. *apartea*
605. *conoplea*
606. *conspersa*
607. v. *stenophylla*
608. *speciosa*
609. *farrea* v. *alphiphora*
610. *parietina*
611. *olivacea*
612. v. *prolixa*
613. *corrugata*
614. *tiliacea*
615. *scortea*
616. *caperata*
617. v. *ulophylla*
618. *perlata*
619. *glomulifera*
620. *physodes*
621. v. *vittata*
622. v. *platyphylla*
623. v. *labrosa*
624. *diatrypa*

Borrera

625. *tenella*
626. v. *exemta*
627. v. *leptalea*
628. *capensis*
629. *ephebea*
630. *ciliaris*
631. v. *melanosticta*
632. v. *verrucosa*
633. v. *actinota*
634. *furfuracea*
635. v. *nuda*
636. v. *ceratea*
637. v. *scobicina*
638. *villosa*
639. *Trulla*
640. *leucomela*
641. *flavicans*

Cetraria

642. *islandica*
— v. *thyreophora*
643. *cucullata*
644. v. *nipharga*
645. v. *tapeina*
646. *nivalis*
647. *glauca*
648. *saepincola*
649. v. *ulophylla*
650. *juniperina*
651. v. *pinastri*

Peltidea

652. *venosa*
653. *horizontalis*
654. v. *hymenina*
655. v. *lophyra*
656. *canina*
657. v. *spuria*
658. v. *membranacea*
659. v. *lacinulata*
660. *polydactyla*
661. v. *microcarpa*
662. *aphthosa*
663. v. *verrucosa*
664. *scutata*
665. v. *collina*

Nephroma

666. *polaris*
667. *resupinata*
668. v. *papyracea*
669. *parilis*

Dufourea

670. *flammea*

Table 1 – *cont.*

671. *mollusca*
672. *madreporiformis*

Cenomyce

673. *papillaria*
674. *epiphylla*
675. v. *caespiticia*
676. *strepsilis*
677. v. *plumosa*
679. *cariosa*
681. *botrytes*
682. *delicata*
682a. *bacillaris*
683. v. *macilenta*
684. v. *apolepta*
685. v. *brachytes*
686. v. *styracella*
687. v. *scolecina*
687a. *cornuta*
688. v. *chordalis*
689. v. *lumbricalis*
690. v. *proboscidalis*
691. v. *merista*
692. v. *exoncera*
693. v. *cercophora*
693a. *radiata*
694. v. *holoschista*
695. v. *nemoxyna*
696. v. *contortuplicata*
697. v. *actinota*
697a. *ecmocyna*
698. v. *elongata*
699. v. *rostrata*
700. v. *gracilis*
701. v. *subulata*
701a. *allotropa*
702. v. *turbinata*
703. v. *verticillata*
704. v. *lomagona*
705. v. *crispata*
706. v. *corymbosa*
707. v. *sparassa*
707a. *gonorega*
708. v. *cenotea*
709. v. *trachyna*
710. v. *pleolepis*
711. v. *virgata*
712. v. *blastica*
713. v. *anomoea*
713a. *coccifera*
714. v. *stemmatina*
715. v. *asotea*
715a. *deformis*
716. v. *digitata*
717. v. *gonecha*
718. v. *crenulata*
719. *damaecornis*
720. v. *gentilis*
721. *alcicornis*
722. *cervicornis*
723. *parecha*
724. v. *cetrarioides*
724a. *coccocephala*
725. v. *vestita*
726. v. *bellidiflora*
727. v. *ampullifera*
728. v. *gracilienta*
729. *uncialis*
730. v. *obtusata*
731. v. *dicraea*
732. v. *bolacina*
733. *adunca* & v. *grypeus*
734. *pyxidata*
734a. v. *simplex*
735. v. *pocillum*
736. v. *fimbriata*
737. v. *syntheta*
738. v. *tuberculosa*
738a. *furcata*
739. v. *spadicea*
740. v. *lepidota*
741. v. *epermena*
742. v. *recurva*
743. v. *incrassata*
744. v. *palamea*
745. v. *pungens*
746. v. *nivea*
747. v. *spinosa*
748. *aggregata*
749. *rangiferina*
750. v. *alpestris*
751. v. *sylvatica*
752. v. *racemosa*
753. v. *curta*
754. *oxycera*
755. *vermicularis*
756. v. *taurica*

Baeomyces

757. *roseus*
758. *rupestris*
759. v. *lignorum*
760. v. *rufus*
— v. *byssoides*

Isidium

761. *laevigatum*
762. *westringii*
763. *coccodes*
764. v. *leucoteum*
765. *phymatodes*
766. v. *phragmeum*
767. *corallinum*

Stereocaulon

768. *paschale*

Table 1 – *cont.*

769. *cereolus*
770. *condyloideum*
771. *nanum*
772. *pileatum*
773. *botryosum*

Sphaerophoron

774. *coralloides*
775. *fragile*

Rhizomorpha

776. *subcorticalis*
777. *setiformis*

Alectoria

777a. *jubata*
778. v. *prolixa*
779. v. *stricta*
780. v. *implexa*
781. v. *chalybeiformis*
782. v. *capillaris*
783. v. *cana*
784. v. *setacea*
785. *usneoides*
786. *sarmentosa*
787. *thrausta*
788. *crinalis*

Ramalina

789. *complanata*
790. *fraxinea*
791. v. *taeniata*
792. v. *ampliata*
793. v. *tuberculata*
794. *fastigiata*
795. v. *calicaris*
796. *scopulorum*
797. v. *cornuata*
798. v. *cuspidata*
799. *farinacea*
799a. v. *gracilenta*
800. v. *multifida*
801. v. *leucorsa*
802. v. *pendulina*
803. v. *phalerata*
— v. *minutula*
804. *pollinaria*
804a. v. *elatior*
804b. v. *humilis*
805. *polymorpha*
806. v. *ligulata*
807. v. *tinctoria*
808. v. *emplecta*
809. *Cerathis*
810. *calamistrata*
811. *peruviana*

Cornicularia

812. *tristis*
— v. *fucina*
813. *spadicea*
814. v. *odontella*
815. *aculeata*
816. v. *muricata*
817. *crocea*
818. *divergens*
819. *bicolor*
820. v. *melaneira*
821. *lanata*
— v. *nitida*
822. *pubescens*
823. *hispidula*
824. *ochroleuca*
825. v. *nigrescens*

Usnea

826. *melaxantha*
827. *florida*
828. v. *strigosa*
829. v. *villosa*
830. v. *rigida*
831. *plicata*
832. v. *comosa*
833. v. *hirta*
834. v. *glabrata*
835. *barbata*
836. v. *implexa*
837. v. *articulata*
838. v. *dasopoga*
839. *longissima*

Collema

840. *nigrum*
841. *limosum*
842. *cheileum*
842a. v. *graniforme*
843. v. *byssaceum*
844. *pulposum*
845. v. *crispum*
846. v. *cristatum*
847. *elveloideum*
848. *chalazanum*
849. *plicatile*
850. *melaenum*
851. v. *gyrosum*
852. v. *marginale*
853. v. *jacobaeaefolium*
854. v. *erosum*
855. *fasciculare*
856. v. *aggregatum*
857. v. *conglomeratum*
858. *thysaneum*
859. *scotinum*
860. v. *sinuatum*

Table 1 – *cont.*

861. v. *lophaeum*
862. *microphyllum*
863. *myriococcum*
864. *synalissum*
865. *glomerulosum*
866. *saturninum*
868. *tremelloides*
869. *lacerum*
870. v. *ateleum*
871. v. *fimbriatum*
872. v. *pulvinatum*
873. *exasperatum*
874. *tunaeforme*
875. *nigrescens*
876. *flaccidum*
877. *furvum*
878. v. *verruciforme*
879. *palmatum*
880. *subtile*
881. *tenuissimum*
882. *muscicola*
883. *pannosum*

Lepraria

884. *chlorina*
885. *incana*
886. v. *latebrarum*
887. *farinosa*
888. *leiphaema*
889. v. *virescens*
890. *olivacea*
891. v. *graminea*
892. *fuliginosa*
— *flava*

893. *Parmelia velutina*

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MACROLICHENS OF EAST AFRICA

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